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ABSTRACT

Results of research conducted by the Florida Community/Junior College Inter-Institutional Research Council to determine the progress of transfer students in the state universities are provided in 29 tables and discussions of the data. The data reported were obtained in five articulation studies made to determine: (1) a general description of community college transfer student characteristics, (2) the relationship of test scores and academic performance, (3) the academic performance of community college transfer students by major and college of origin, (3) the retention of transfer students in the universities, and (4) the numbers of transfer students in post-baccalaureate programs and their academic success. An appendix provides annotations of the literature reviewed. (DB)

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ARTICULATION STUDY REPORT

1973

JC 740 068

DEPARTMENT OF EDUCATION

DIVISION OF COMMUNITY COLLEGES

TALLAHASSEE, FLORIDA

This public document was promulgated at an annual cost of $587.76 or $.59 per copy to inform the interested public of the academic progress of former community college students who have transferred to Florida universities.

FOREWORD

A major function of Florida's public community colleges is to provide curricula comparable to those found in the lower divisions of institutions in the university system. Consequently, the community colleges and the Division of Community Colleges are concerned about the academic progress of those students transferring to the state universities.

The Articulation Agreement (1971) between the Division of Community Colleges and the Division of Universities provides for the encouragement of research conducted cooperatively by these two divisions. The following report is the result of such a research project designed to provide information on the progress of transfer students. This study would not have been possible without the full support and cooperation of the Board of Regents and the nine universities in the State University System. The Florida Community/Junior College Inter-Institutional Research Council who conducted the study is to be commended for a job well done.

Additional copies of this report may be obtained from Textbook Services, 317 Knott Building, Tallahassee, Florida 32304, for $ .75 (includes postage) each.

Acknowledgements

This study was conducted by the Florida Community/Junior College Inter-Institutional Research Council under a Title V grant administered through the Florida State Department of Education. The grant was co-administered by Dr. Lee Henderson of the Division of Community Colleges and Dr. G. Emerson Tully of the Division of Universities.

An Advisory Committee provided assistance in defining the studies, assigning priorities, and suggesting formats for presentation of data. This Advisory Committee consisted of the following persons:

Dr. A. A. Abraham - Florida A & M University
Dr. George Barton - Hillsborough Community College
Dr. Wallace Bell - Division of Community Colleges
Dr. Ed Cottrell - St. Petersburg Community College at Clearwater
Dr. Bud Gilligan - Central Florida Community College
Dr. Nancy Goodwin - Florida International University
Dr. Barry Greenburg - Miami-Dade Junior College
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Mr. Rodney G. Hurley - Tallahassee Community College
Mr. Norris Miner - Seminole Community College
Dr. G. Emerson Tully - Division of Universities
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Thanks are due to Dr. Fred W. Turner, who made the Tallahassee Community College computer system available for data collection and analysis and the services of Mr. Rodney Hurley and Mr. L. Mitchell Davidson.

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Introduction

One of the most notable developments in the United States in recent years has been the democratization of higher education. In Florida this has been accomplished by the development of a system of public community colleges and a system of public universities, both administered under the State Board of Education. Presently, 28 community colleges and 9 universities with enrollment totals of more than 271,000 (head count) manifest Florida's success in higher education democratization.

Perhaps this success can be attributed, in part, to the provisions for smooth transfer of students from community colleges into the universities after completion of their first two years of study. Such provisions include the acceptance of the AA degree and completion of general education requirements in the community college in lieu of lower division and general education requirements of the universities.

To insure that articulation problems are minimized, a state Articulation Coordinating Committee consisting of both community college and university representatives has been appointed to recommend policies relative to articulation. This committee has been charged by The Articulation Agreement between Public Community Colleges and Public Universities, Section II, Part E to,

> ... establish the priority to be given research conducted cooperatively by the Division of Community Colleges and the Division of Universities in conjunction with individual institutions. Such research will be encouraged and will be conducted in the areas such as admissions, grading practices, curriculum design, and follow-up of transfer students.

Objectives of this Study

In following the mandate of these provisions of the agreement, the Division of Community Colleges and the Division of Universities actively began to initiate and plan for a program of articulation research for Florida's public institutions of higher education. The planning for this research began in a meeting of divisional representatives in December, 1971. Subsequently, tentative descriptions of suggested articulation studies were formulated by the two divisions with intentions of having institutional representatives from the public universities and community colleges come together to discuss the feasibility of such studies.

On April 17, 1972, in Tallahassee, Florida, representatives from 7 of the state universities and 15 of the community colleges met to react to, comment on, and make suggestions and recommendations about aspects of the proposed studies. The results of this meeting were reviewed and the suggestions were incorporated into a proposal requesting funds from the Florida Department of Education. The proposal was approved for funding and The Florida Community Junior College Inter-Institutional Research Council (IRC) was engaged to conduct the proposed study in consultation with an advisory committee. Subsequently, 5 studies were designed in consultation with the Advisory Committee and that met the objectives of the proposal. The studies were to provide data as follows:

a. General description of community college transfer student characteristics.

b. Relationship of test scores and academic performance.

c. Academic performance of community college transfer students by major and college of origin.

d. Retention of transfer students in the universities.

e. Numbers of transfer students in post-baccalaureate programs and their academic success.

This report presents the results of these articulation studies.

Review of the Literature

Much of the literature reviewed was found to be relevant to more than one of the proposed five areas of study. Therefore, it was not possible to present related literature under each study area without redundancy. Rather, the literature reviewed is presented in annotated form in the appendix.

In pursuing the literature one finds a singularly unique lack of data pertaining to a practical description of the community college transfer student. The literature abounds with implications concerning transfer students, yet a thorough statistical description which can be used in academic decision-making is not available. Studies conducted by Cross (1968), Hill (1965), Knoell (1965), et.al., are designed around the authors' intentions and thus do not lend themselves to the type of information made available in this study.

Surveys of the literature do not reveal whether possible thresholds for admissions tests have been studied. The majority of the relevant studies have assumed a linear relationship between test scores and grade point average and do not control for major, university, or community college.

The reader will note the limited research that would indicate the transfer student's performance by major in the senior institution. Medsker (1960), Nickens (1970A), and Suddarth (1971) suggest that, in general, community college transfer students do well in the senior institutions, yet their findings are not based on particular majors.

The literature indicates that there has been a large amount of research on the retention of students in senior institutions. Typically these studies relate to student persistency by: (1) high school achievement, (2) performance on tests, (3) grade point average, (4) motivation, (5) educational goals, and (6) major field of study. These studies have reported that the above mentioned variables relate differently for males and females and for different age groups.

Current literature was not found to lend itself to identifying, by program and by institution, where transfer students have difficulty. As previously mentioned, the majority of the research has pertained to upper division success of the transfer student.

Method

Student data tapes were obtained from each of the participating universities (this includes all Florida universities in operation Fall, 1971, with the exception of Florida Agricultural and Mechanical University which had less than 90 transfer students of community college origin). Each data tape was re-blocked and the data elements of interest were converted into a common format. Each data element from each university was edited and records that were considered unusable were purged. The data were then sorted by university, by community college, and by social security number. Computer programs were then designed to provide an analysis of data as required by the proposed study. The output required for each table was carefully checked for plausibility and compatibility against previous reports produced by each institution.

This method provided the flexibility needed to accommodate the requests of the Advisory Committee and the state Articulation Coordinating Committee. Further, this method resulted in a data base to which data from subsequent terms could easily be added, thus facilitating additional research.

Results and Discussion

The results of this study are presented under these four general headings:

1. A general description of student characteristics
2. Academic performance of community college transfer students by majors
3. Florida Twelfth Grade Test scores and academic performance of transfer students
4. Academic success of the graduates of three Florida public universities in post-baccalaureate study

It should be remembered that the data reported in this study are for all students enrolled in the universities studied during the Fall, 1971 term; thus year to year changes are not indicated.

General Description of Student Characteristics

Table 1 shows male and female community college transfer students enrolled in the six universities. It can be observed from this table that the University of South Florida (USF) received the highest percentage, 23%, of the total community college transfer population. The University of Florida (UF) received the second highest percentage of the total, 22%. Florida State University (FSU) received 18%, Florida Atlantic University (FAU) received 16%, University of West Florida (UWF) received 12%, and Florida Technological University (FTU) received 7%.

Thirty-six percent of community college transfer students in the State University System (SUS) were female.

These data indicate that the University of Florida still maintains its tradition of being a male-oriented university since only 35% of its transfers were female; however, Florida Technological University has an even lower percentage of females (31%). Florida State University also seems to continue its tradition of being a female oriented university since it had the largest percentage of female transfer students of the six state universities included in this study (42 %).

TABLE 1.
CLASSIFICATION OF TRANSFER STUDENTS BY SEX AND SENIOR INSTITUTION

	UF		FSU		USF		FAU		FTU		UWF		SUS	
SEX	N	%	N	%	N	%	N	%	N	%	N	%	N	%
FEMALE	1496	34	1493	42	1584	35	1205	37	454	31	854	36	7086	36
MALE	2830	66	2019	57	3000	65	2065	63	1015	69	1500	64	12429	64
UNCLASSIFIED	0	0	5	0	1	0	0	0	0	0	0	0	6	0
TOTAL	4326		3517		4585		3270		1469		2354		19521	

While classification by race is opposed in some circles and inaccuracies are frequently found in this element in self reported data, this study included this classification. However, inferences gleaned from race data should be tentative. It was thought to be pertinent in a study of this type.

As shown in Table 2, the data tapes afforded by three of the six institutions in this study had no race data element. Of those

institutions with these data, FSU had the largest number of Black transfer students (2.9% of their total community college transfer population) while at FTU and UF the numbers were 37 (2.5%) and 78 (1.8%), respectively. Also, one can observe from Table 2 that small numbers of Indians have transferred from community colleges to universities. Perhaps few Indians attend the community college, and complete the community college program.

TABLE 2.
CLASSIFICATION OF TRANSFER STUDENTS BY RACE AND SENIOR INSTITUTION

RACE	UF	FSU	USF*	FAU*	FTU	UWF*	SUS
CAUCASIAN	4116	2921	-	-	1407	-	8444
INDIAN AMERICAN	3	0	-	-	?	-	5
ORIENTAL AMERICAN	17	8	-	-	3	-	28
NEGRO/BLACK	78	104	-	-	37	-	219
SPANISH AMERICAN SURNAME	29	14	-	-	2	-	45
FOREIGN	0	0	-	-	3	0	3
OTHER	0	7	-	-	0	-	7
UNCLASSIFIED	83	463	4585	3270	15	2354	10770
TOTAL	4326	3517	4585	3270	1469	2354	19521

* Not defined on data tapes.

Table 3 shows the number of community college transfer students by age and university. The median age is between 21 and 22. The modal age was found to be 21 years and comprises 21% of the SUS total. This same mode holds for each university studied. It can also be observed that a large number of community college transfer students are considerably older than the mode. This variance from the mode may be due to veterans who have enrolled and students who have worked and attended college

TABLE 3.
CLASSIFICATION OF TRANSFER STUDENTS BY AGE AND SENIOR INSTITUTION

AGE	UF N	UF %	FSU N	FSU %	USF N	USF %	FAU N	FAU %	FTU* N	FTU* %	UWF N	UWF %	SUS N	SUS %
17	0	0	0	0	2	0	1	0	-	-	0	0	3	0
18	9	0	22	1	17	0	13	0	-	-	1	0	62	0
19	153	4	108	3	108	2	32	1	-	-	18	1	419	2
20	1012	23	940	27	798	17	486	15	-	-	418	18	3654	19
21	1191	28	1025	29	973	21	617	19	-	-	531	23	4337	22
22	676	16	488	14	596	13	431	13	-	-	284	12	2475	13
23	317	7	209	6	355	8	293	9	-	-	145	6	1329	7
24	244	6	187	5	343	7	250	8	-	-	147	6	1171	6
25	194	4	161	5	326	7	238	7	-	-	123	5	1042	5
26	131	3	103	3	212	5	156	5	-	-	101	4	703	4
27	99	2	56	2	166	4	123	4	-	-	63	3	507	3
28	61	1	52	1	107	2	91	3	-	-	54	2	365	2
29	33	1	23	1	79	2	71	2	-	-	60	3	266	1
30	33	1	21	1	64	1	53	2	-	-	46	2	217	1
31	22	0	18	1	51	1	45	1	-	-	35	1	171	1
32	24	0	13	0	48	1	48	1	-	-	20	1	153	1
33	19	0	5	0	23	1	36	1	-	-	29	1	112	1
34	12	0	8	0	35	1	28	1	-	-	24	1	107	1
35	13	0	6	0	27	1	27	1	-	-	24	1	97	0
36	6	0	12	0	22	0	19	1	-	-	21	1	80	0
37	8	0	3	0	16	0	10	0	-	-	17	1	54	0
38	8	0	1	0	25	0	24	1	-	-	20	1	78	0
39	10	0	2	0	13	0	21	1	-	-	12	1	58	0
40	2	0	3	0	16	0	17	1	-	-	16	1	54	0
41	4	0	2	0	18	0	18	1	-	-	13	1	55	0
42	6	0	1	0	15	0	12	0	-	-	13	1	47	0
43	1	0	1	0	15	0	15	0	-	-	11	0	43	0
44	1	0	4	0	9	0	9	0	-	-	13	1	36	0
45	4	0	1	0	15	0	11	0	-	-	6	0	37	0
46	7	0	2	0	10	0	8	0	-	-	8	0	35	0
47	2	0	1	0	12	0	12	0	-	-	11	0	38	0
48	5	0	2	0	9	0	12	0	-	-	7	0	35	0
49	3	0	0	0	12	0	10	0	-	-	8	0	33	0
50	3	0	0	0	3	0	3	0	-	-	11	0	20	0
UNCLASSIFIED	13	0	37	1	45	1	30	1	1469	100	44	2	1638	8
TOTAL	4326		3517		4585		3270		1469		2354		19521	

* FTU student data tapes did not contain this data element and thus is not included in SUS data.

intermittently. Additionally, there was a large number of transfer students 30 years old or older who were attending USF, FAU, and UWF. This may be due to the proximity of retirement centers, military bases, and the broad offerings through continuing education.

Table 4 shows year of entry for community college transfer students. In 1968 31% of the entire transfer student population in the SUS was enrolled at UF. This figure had dropped to 21% by the year 1971; a decrease of 10%. This decrease most likely can be attributed to the development of other universities in the state system (note others' opening dates). The largest increase of community college transfer students since 1968 was reported at FSU. In 1968 FSU's transfer population constituted only 6% of the SUS, but by 1971 FSU had 23% of the SUS community college transfer students., USF had the largest percent of these students (25) in 1971,

TABLE 4.
CLASSIFICATION OF TRANSFER STUDENTS BY YEAR OF ENTRY AND SENIOR INSTITUTION

	U F		FSU		USF		FAU		FTU*		UWF		SUS
YEAR OF ENTRY	N	%	N	%	N	%	N	%	N	%	N	%	N
1971	1969	21	2112	23	2327	25	1645	18	-	-	1233	13	9286
1970	1505	25	1137	19	1529	26	968	16	-	-	849	14	5988
1969	587	33	223	12	448	25	364	20	-	-	165	9	1787
1968	158	31	33	6	131	26	132	26	-	-	57	11	511
1967	67	27	0	0	51	21	79	32	-	-	49	20	246
1966	25	28	0	0	22	24	43	48	-	-	0	0	90
1965	4	9	0	0	22	48	20	43	-	-	0	0	46
1964	3	8	0	0	30	77	6	15	-	-	0	0	39
1963	3	30	0	0	7	70	0	0	-	-	0	0	10
1962	2	33	0	0	4	67	0	0	-	-	0	0	6
1961	2	29	0	0	5	71	0	0	-	-	0	0	7
1960	0	0	0	0	6	100	0	0	-	-	0	0	6
UNCLASSIFIED	1	0	12	0	3	0	13	1	1469	98	1	0	1499
TOTAL	4326		3517		4585		3270		1469		2354		19521

* FTU data tape did not contain this data element.

and the University of West Florida had the lowest percent (13). Fluctuation in percent of transfer student enrollments may be observed in all the institutions presented here except USF, whose proportional changes have remained approximately 25% of the total SUS.

Numbers of quarter hours transferred to each university are shown by Table 5. The majority of community college transfer students who entered the SUS had between 90-104 quarter hours, indicating that they have completed at least the number of credits usually required for the Associate of Arts degree. The only institution with a noticeable deviation is FAU. There a high percentage of transfer students enrolling with more than 105 quarter hours can be observed. This could result

TABLE 5.
CLASSIFICATION OF TRANSFER STUDENTS BY QUARTER HOURS OF CREDIT TRANSFERRED AND UNIVERSITY

	UF		FSU		USF		FAU		FTU		UWF		SUS	
CREDITS	N	%	N	%	N	%	N	%	N	%	N	%	N	%
0- 14	269	6	790	22	502	11	32	1	114	8	85	4	1792	9
15- 29	59	1	956	27	51	1	12	0	230	16	0	0	1308	7
30- 44	86	2	257	7	143	3	6	0	335	23	1	0	828	4
45- 59	198	5	480	14	165	4	13	0	264	18	4	0	1124	6
60- 74	155	4	576	16	194	4	10	0	121	8	1	0	1057	5
75- 89	602	14	210	6	670	15	93	3	135	9	46	2	1756	9
90-104	2906	67	143	4	2782	61	1398	43	197	13	1452	62	8878	45
105-119	38	1	55	2	15	0	810	25	44	3	498	21	1460	7
120-134	6	0	26	1	13	0	415	13	19	1	143	6	622	3
135-149	4	0	17	0	9	0	223	7	6	0	55	2	314	2
150-164	2	0	2	0	6	0	107	3	3	0	32	1	152	1
165-179	1	0	1	0	7	0	71	2	1	0	17	1	98	1
180-194	0	0	2	0	25	1	42	1	0	0	8	0	77	0
195-209	0	0	2	0	1	0	16	0	0	0	3	0	22	0
210-224	0	0	0	0	1	0	7	0	0	0	5	0	13	0
225-239	0	0	0	0	1	0	6	0	0	0	2	0	9	0
240-254	0	0	0	0	0	0	4	0	0	0	1	0	5	0
255-269	0	0	0	0	0	0	0	0	0	0	1	0	1	0
270-284	0	0	0	0	0	0	4	0	0	0	0	0	4	0
285-299	0	0	0	0	0	0	1	0	0	0	0	0	1	0
TOTAL	4326		3517		4585		3270		1469		2354		19521	

from an articulation problem between this university and community colleges. The data also show that over 80% of the community college transfer students who entered FTU earned less than 90 quarter hours credit in the community college. Perhaps this large figure resulted from the institution's recent opening with a lower division (Fall 1968), and students from that geographic area transferring to FTU from other colleges in order to take advantage of its proximity.

Table 6 show the total number of quarter hours earned at community

TABLE 6.
CLASSIFICATION OF TRANSFER STUDENTS BY TOTAL QUARTER HOURS OF CREDIT AND UNIVERSITY

	UF		FSU		USF		FAU		FTU		UWF		SUS	
CREDIT	N	%	N	%	N	%	N	%	N	%	N	%	N	%
0- 14	46	1	31	1	200	4	0	0	47	3	31	1	355	2
15- 29	95	2	143	4	138	3	12	0	19	1	24	1	431	2
30- 44	43	1	76	2	78	2	8	0	21	1	13	1	239	1
45- 59	81	2	28	1	82	2	3	0	13	1	9	0	216	1
60- 74	106	2	38	1	105	2	13	0	16	1	6	0	284	1
75- 89	114	3	71	2	103	2	15	0	25	2	5	0	333	2
90-104	423	10	122	3	890	19	62	2	66	4	81	3	1644	8
105-119	1089	25	722	20	764	17	593	2	163	1	525	22	3856	20
120-134	301	7	469	13	352	8	371	11	250	17	288	12	2022	10
135-149	431	10	117	3	526	11	296	9	282	19	208	9	1860	10
150-164	722	17	90	1	618	13	382	12	152	10	390	17	2354	12
165-179	338	8	137	4	303	7	359	11	110	7	346	15	1593	8
180-194	221	5	140	4	296	6	288	9	197	13	185	8	1327	7
195-209	202	5	230	7	81	2	264	8	73	5	114	5	964	5
210-224	69	2	364	10	29	1	220	7	20	1	57	2	759	4
225-239	25	0	228	6	6	0	153	5	8	1	31	1	451	2
240-254	11	0	145	4	9	0	90	3	6	0	19	1	280	1
255-269	6	0	108	3	3	0	43	1	1	0	13	1	174	1
270-284	2	0	97	3	1	0	36	1	0	0	2	0	138	1
285-299	1	0	66	2	0	0	25	1	0	0	2	0	94	0
300-314	0	0	42	1	0	0	14	0	0	0	3	0	59	0
315-329	0	0	19	1	0	0	7	0	0	0	1	0	27	0
330-344	0	0	15	0	0	0	8	0	0	0	1	0	24	0
345-359	0	0	12	0	0	0	3	0	0	0	0	0	15	0
360-374	0	0	6	0	0	0	4	0	0	0	0	0	10	0
375-389	0	0	5	0	0	0	0	0	0	0	0	0	5	0
390-404	0	0	4	0	1	0	0	0	0	0	0	0	5	0
405-419	0	0	1	0	0	0	1	0	0	0	0	0	2	0
TOTAL	4326		3517		4585		3270		1469		2354		19521	

colleges and in universities. Since this is not a longitudinal study, the reader is cautioned to use judgement in analyzing these data. However, the number of credit hours in excess of graduation requirements may be related to articulation problems. Approximately 180 credit hours are usually required for graduation depending on whether physical education hours are counted. It can be observed that numerous students have credits in excess of this requirement.

Community college transfer students were also classified by their student status by university. Results of this classification are given in Table 7.

TABLE 7.
CLASSIFICATION OF TRANSFER STUDENTS BY STUDENT STATUS AND UNIVERSITY

	UF		FSU		USF		FAU		FTU		UWF		SUS	
STUDENT STATUS	N	%	N	%	N	%	N	%	N	%	N	%	N	%
FRESHMAN	72	2	226	6	162	4	0	0	74	5	0	0	534	3
SOPHOMORE	247	6	154	4	374	8	0	0	57	4	0	0	832	4
JUNIOR	2171	50	1559	44	2479	54	1452	44	499	34	367	16	8527	44
SENIOR	1468	34	1509	43	1405	31	1369	42	814	55	1782	76	8347	43
FIVE-YEAR PROGRAM	162	4	0	0	0	0	0	0	0	0	0	0	162	1
POST BACCALAUREATE-NONGRADUATE	19	0	0	0	0	0	0	0	0	0	0	0	19	0
SECOND BACHELORS	0	0	0	0	9	0	26	1	0	0	0	0	35	0
GRADUATE	186	4	45	1	147	3	164	5	24	2	146	6	712	4
TEMPORARY GRADUATE	0	0	0	0	0	0	259	8	0	0	0	0	259	1
NON-DEGREE	0	0	19	1	8	0	0	0	0	0	0	0	27	0
SPECIAL	0	0	0	0	0	0	0	0	0	0	56	2	56	0
TRANSIENT	0	0	0	0	0	0	0	0	0	0	3	0	3	0
HIGH SCHOOL	0	0	1	0	0	0	0	0	0	0	0	0	1	0
UNCLASSIFIED	1	0	4	0	1	0	0	0	1	0	0	0	7	0
TOTAL	4326		3517		4585		3270		1469		2354		19521	

It can be observed that only 7% of the transfer students in the SUS have less than junior standing. This suggests that the majority of the transfer students have taken advantage of the articulation

plan provided for Florida community college students who receive their AA degree and meet general education requirements. This table further shows that some 5% of the transfer students of Florida community college origin have reached graduate status.

Disparity between the number of students who transfered to a university as juniors and the number of senior transfer students may be indicative of enrollment trends, or indicative of the extension of the transfer students' upper division program for more than two calendar years. Additional data are needed to determine which is the case. It should be noted, however, that the percent of junior students (44) is approximately the same as senior students for the SUS.

Table 8 shows the county of origin of community college transfer students for each university. These data indicate that there is a tendency for transfer students from community colleges to enroll in senior institutions located nearest their homes. This can clearly be seen by totaling the number of community college transfers attending a university near their county and comparing that total with the total attending other universities in the state system. For example, 7.26% of the SUS transfer population from Alachua, Bradford, Union, Gilchrist, Dixie, Levy, Marion, Putnam, Clay, Sumter, and Lake counties attended nearby UF. Approximately the same percent, 76.8, of the total SUS community college transfer population from Escambia, Santa Rosa, Okaloosa, Walton, Holmes, Washington, Bay, and Gulf attended the UWF. Approximately 75.6 percent of the total community college transfer population from Leon, Wakulla, Jefferson, Madison, Taylor, Hamilton, Suwannee, Lafayette, Liberty, Calhoun, Jackson, and Gadsden counties attended FSU; and again the trend was validated for the USF where 63% of the SUS community college transfer population from Hillsborough, Pinellas, Manattee, Sarasota,

TABLE 8.
CLASSIFICATION OF COMMUNITY COLLEGE TRANSFER STUDENTS BY COUNTY AND UNIVERSITY

COUNTY	UF N	UF %	FSU N	FSU %	USF N	USF %	FAU N	FAU %	FTU N	FTU %	UWF N	UWF %	SUS N	SUS %
ALACHUA	775	18	24	1	20	0	3	0	1	0	7	0	830	4
BAKER	13	0	2	0	1	0	0	0	0	0	3	0	19	0
BAY	47	1	92	3	7	0	6	0	0	0	107	5	259	1
BRADFORD	33	1	7	0	3	0	1	0	1	0	2	0	47	0
BREVARD	214	5	133	4	94	2	47	1	342	23	16	1	846	4
BROWARD	270	6	207	6	101	2	1074	33	6	0	25	1	1683	9
CALHOUN	7	0	15	0	1	0	0	0	0	0	8	0	31	0
CHARLOTTE	2	0	6	0	8	0	4	0	1	0	1	0	22	0
CITRUS	5	0	9	0	13	0	0	0	0	0	5	0	32	0
CLAY	35	1	12	0	11	0	3	0	0	0	4	0	65	0
COLLIER	10	0	14	0	15	0	4	0	1	0	3	0	47	0
COLUMBIA	35	1	11	0	3	0	4	0	0	0	13	1	66	0
DADE	922	21	672	19	460	10	810	25	6	0	56	2	2926	15
DE SOTO	7	0	1	0	5	0	0	0	0	0	0	0	13	0
DIXIE	16	0	1	0	1	0	0	0	0	0	1	0	19	0
DUVAL	183	4	275	8	113	2	21	1	18	1	56	2	666	3
ESCAMBIA	68	2	79	2	14	0	2	0	1	0	1126	48	1290	7
FLAGLER	1	0	1	0	2	0	0	0	2	0	0	0	6	0
FRANKLIN	1	0	5	0	0	0	0	0	0	0	4	0	10	0
GADSDEN	5	0	49	1	1	0	0	0	0	0	14	1	69	0
GILCHRIST	4	0	2	0	4	0	0	0	0	0	0	0	10	0
GLADES	2	0	1	0	0	0	0	0	0	0	0	0	3	0
GULF	6	0	6	0	0	0	0	0	0	0	8	0	20	0
HAMILTON	3	0	7	0	0	0	1	0	0	0	2	0	13	0
HARDEE	3	0	6	0	9	0	0	0	0	0	1	0	19	0
HENDRY	6	0	6	0	6	0	2	0	0	0	0	0	20	0
HERNANDO	6	0	1	0	13	0	0	0	0	0	0	0	20	0
HIGHLANDS	7	0	12	0	14	0	9	0	7	0	8	0	57	0
HILLSBOROUGH	55	1	69	2	670	15	9	0	1	0	7	0	811	4
HOLMES	7	0	8	0	0	0	0	0	0	0	33	1	48	0
INDIAN RIVER	17	0	4	0	13	0	15	0	4	0	3	0	56	0
JACKSON	22	1	73	2	5	0	3	0	0	0	48	2	151	1
JEFFERSON	2	0	16	0	3	0	0	0	0	0	2	0	23	0
LAFAYETTE	6	0	9	0	0	0	0	0	0	0	1	0	16	0
LAKE	47	1	41	1	19	0	4	0	45	3	6	0	162	1
LEE	51	1	64	2	72	2	33	1	1	0	18	1	239	1
LEON	4	0	359	10	8	0	2	0	1	0	5	0	379	2
LEVY	23	1	4	0	5	0	0	0	0	0	2	0	34	0
LIBERTY	3	0	5	0	1	0	0	0	0	0	0	0	9	0
MADISON	11	0	41	1	0	0	0	0	1	0	2	0	55	0
MANATEE	57	1	59	2	122	3	10	0	1	0	10	0	259	1
MARION	120	3	35	1	20	0	8	0	12	1	21	1	216	1
MARTIN	8	0	4	0	7	0	19	1	0	0	0	0	38	0

TABLE 8. continued

COUNTY	U F N	%	FSU N	%	USF N	%	FAU N	%	FTU N	%	UWF N	%	SUS N	%
MONROE	17	0	10	0	25	1	18	1	0	0	3	0	73	0
NASSAU	8	0	11	0	0	0	2	0	0	0	4	0	25	0
OKALOOSA	34	1	72	2	11	0	0	0	2	0	260	11	379	2
OKEECHOBEE	3	0	3	0	3	0	13	0	0	0	0	0	22	0
ORANGE	61	1	72	2	63	1	12	0	651	44	15	1	874	4
OSCEOLA	3	0	0	0	2	0	0	0	17	1	0	0	22	0
PALM BEACH	210	5	161	5	47	1	895	27	5	0	1	0	1319	7
PASCO	15	0	5	0	16	0	1	0	1	0	3	0	41	0
PINELLAS	284	7	259	7	1062	23	24	1	8	1	56	2	1693	9
POLK	135	3	100	3	246	5	17	1	28	1	12	1	538	3
PUTNAM	47	1	20	1	10	0	9	0	1	0	9	0	96	0
ST. JOHNS	24	1	19	1	8	0	2	0	4	0	2	0	59	0
ST. LUCIE	44	1	23	1	29	1	51	2	0	0	3	0	150	1
SANTA ROSA	11	0	25	1	3	0	1	0	0	0	183	8	223	1
SARASOTA	43	1	46	1	119	3	11	0	2	0	9	0	230	1
SEMINOLE	27	1	29	1	12	0	2	0	192	13	1	0	263	1
SUMTER	18	0	5	0	9	0	1	0	7	0	1	0	41	0
SUWANNEE	13	0	21	1	3	0	0	0	0	0	4	0	41	0
TAYLOR	8	0	23	1	2	0	0	0	0	0	1	0	34	0
UNION	16	0	2	0	3	0	0	0	0	0	1	0	22	0
VOLUSIA	89	2	91	3	47	1	25	1	92	6	10	0	354	2
WAKULLA	0	0	13	0	0	0	0	0	0	0	0	0	13	0
WALTON	6	0	8	0	2	0	0	0	0	0	40	2	56	0
WASHINGTON	11	0	6	0	0	0	0	0	0	0	20	1	37	0
UNCLASSIFIED	80	2	46	1	999	22	92	3	7	0	88	4	1312	7
TOTAL	4326		3517		4585		3270		1469		2354		19521	

Hardee, Polk, and Citrus were enrolled. Further 63% of the SUS community college transfer students from Palm Beach, Martin, St. Lucie, Indian River, Broward, Okeechobee, Henry and Collier counties attend FAU; and finally 44.6% of the SUS community college transfer population of Brevard, Orange, Seminole, Osceola, Polk, Lake and Volusia counties attend FTU.

These data explicitly show that there is a strong relationship between the proximity of location of senior institutions and its attraction of community college transfer students. The wisdom of the Legislature's decision to place a university in proximity of the urban areas of Florida is reflected in these data.

Table 9 shows the number of transfer students by community college

of origin and university attended. From this table it can be seen that the large enrollments of Miami-Dade have contributed substantially to the enrollments of most of the universities included in this study. The

TABLE 9.
CLASSIFICATION OF TRANSFER STUDENTS BY COMMUNITY COLLEGE AND UNIVERSITY

	U F		FSU		USF		FAU		FTU		UWF		SUS	
COMMUNITY COLLEGE	N	%	N	%	N	%	N	%	N	%	N	%	N	%
BREVARD	253	6	146	4	150	3	78	2	391	27	36	2	1054	5
BROWARD	224	5	169	5	106	2	887	27	4	0	26	1	1416	7
CENTRAL FLORIDA	155	4	51	1	43	1	14	0	21	1	41	2	325	2
CHIPOLA	67	2	143	4	5	0	2	0	1	0	168	7	386	2
DAYTONA BEACH	116	3	87	2	51	1	36	1	132	9	17	1	439	2
EDISON	76	2	80	2	114	2	57	2	4	0	29	1	360	2
FLA.J.C.at JAX.	145	3	213	6	67	1	32	1	24	2	45	2	526	3
FLORIDA KEYS	15	0	13	0	28	1	25	1	5	0	7	0	93	0
GULF COAST	62	1	107	3	17	0	7	0	3	0	162	7	358	2
HILLSBOROUGH	1	0	20	1	356	8	4	0	0	0	0	0	381	2
INDIAN RIVER	82	2	36	1	54	1	101	3	13	1	18	1	304	2
LAKE CITY	120	3	26	1	4	0	5	0	3	0	34	1	192	1
LAKE-SUMTER	66	2	47	1	27	0	4	0	66	4	5	0	215	1
MANATEE	124	3	113	3	293	6	34	1	5	0	23	1	592	3
MIAMI-DADE	1049	24	705	20	553	12	1039	32	18	1	84	4	3448	18
NORTH FLORIDA	67	2	185	5	23	1	2	0	3	0	42	2	322	2
OKALOOSA-WALTON	36	1	74	2	13	0	1	0	6	0	323	14	453	2
PALM BEACH	263	6	174	5	61	1	797	24	9	1	8	0	1312	7
PENSACOLA	106	2	119	3	28	1	10	0	8	1	1101	47	1372	7
POLK	161	4	92	3	343	7	24	1	48	3	17	1	685	4
SANTA FE	556	13	69	2	59	1	31	1	16	1	28	1	759	4
SEMINOLE	54	1	58	2	49	1	6	0	341	23	11	0	519	3
SOUTH FLORIDA	10	0	16	0	28	1	9	0	8	1	12	0	83	0
ST. JOHNS RIVER	114	3	58	2	28	1	17	1	15	1	25	1	257	1
ST. PETERSBURG	361	8	300	9	2042	44	39	1	23	2	76	3	2841	15
TALLAHASSEE	9	0	379	11	6	0	2	0	6	0	11	0	413	2
VALENCIA	34	1	37	1	37	1	7	0	296	20	5	0	416	2
TOTAL	4326		3517		4585		3270		1469		2354		19521	

largest percentage of the Miami-Dade Community College alumni in any of the universities studied was found to be enrolled at nearby FAU. This is as one would expect from data presented in the previous table. However, Miami-Dade

Community College alumni also comprise the highest percentages of transfer students at UF, FSU, and USF. FTU and UWF had only 1% and 4% respectively of Miami-Dade alumni. Of the 19,521 transfer students enrolled in the SUS, 3,348 (18%) were from Miami-Dade Community College.

The tendency of students to attend the nearest state university can also be observed in these data. When no university is in close proximity to the community college, as in the case of Edison Community College, no attendance pattern is apparent.

Academic Performance of Community College Transfer Students by Community College of Origin

Previous research (Grover, 1967; Hartment & Caple, 1969; Knowll, 1962; Loughlin, 1967; and Medsker, 1960) has indicated that transfer students in general do well in senior institutions. The findings of this study were consistent with such research. As can be seen from Table 10, 84% of transfer students of community college origin have grade point averages of 2.00 or higher. Since students who maintain a 2.00 or higher are considered to be in good academic standing by all Florida universities, this speaks well for the community colleges. Of the 16% who have less than a 2.00 average, some will improve their averages and remain at a university. Data are not available at this time describing the percent of transfer students with less than a 2.00 average who actually are retained by universities due to unsatisfactory performance until the average improves.

TABLE 10.
CLASSIFICATION OF TRANSFER STUDENTS BY GRADE-POINT AVERAGE AND UNIVERSITY

	UF		FSU		USF		FAU		FTU		UWF		SUS	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%
0.00-0.49	95	2	82	2	153	3	104	3	11	1	45	2	490	3
0.50-0.99	43	1	38	1	50	1	75	2	9	1	12	1	227	1
1.00-1.49	169	4	97	3	176	4	205	6	34	2	34	1	715	4
1.50-1.99	449	10	238	7	415	9	458	14	112	8	145	6	1816	9
2.00-2.49	1181	27	892	25	1186	26	921	28	358	24	468	29	5006	26
2.50-2.99	1086	25	1024	29	1087	24	806	25	439	30	680	29	5122	26
3.00-3.49	866	20	784	22	962	21	501	15	325	22	599	25	4937	21
3.50-4.00	437	10	362	10	556	12	200	6	181	12	371	16	2107	11
TOTAL	4326		3517		4585		3270		1469		2354		19521	

It can be seen in Table 10 that the percent of students who have less than a 2.00 average varies across universities. It can be observed that UF and USF have the same percentage of such students (17). However, FAU has a much higher percent (25) and, FSU, FTU and UWF have much lower percentages of these students (13, 12 and 10 respectively).

Table 11 indicates university grade point averages attained by students transferring prior to earning 90 hours and students transferring after earning 90 quarter hours or more. These figures are of particular interest since students who transfer prior to earning 90 quarter hours, typically, are required to have a score of 300 or higher on the Florida Twelfth-Grade Placement Test while students reaching junior standing, or attaining the AA degree, may be admitted regardless of their Florida Twelfth Grade Test score.

In the case of the university system, the mean grade point averages obtained by each group are almost identical. Further, there seems to be little variance in the SUS grade point average of these two groups when viewed by community college of origin.

Table 12 shows the grade point average of community college transfer students by community college of origin and by university. These data were compiled for the specific purpose of determining if students from a particular community college might be having academic difficulty at one or more of the universities.

This may be the case for students from Chipola Community College, Hillsborough Community College, Santa Fe Community College and St. John's River Community College who attend FAU. However, students from these colleges appear to be performing well at other universities. These data suggest that a study should be made to determine reasons for this academic difficulty in selected programs at FAU.

TABLE 11.
COMPARISON OF GRADE POINT AVERAGE ATTAINED IN UNIVERSITIES OF STUDENTS TRANSFERRING PRIOR TO EARNING 90 QUARTER HOURS (a) AND STUDENTS TRANSFERRING AFTER EARNING 90 QUARTER HOURS OR MORE (b)

COMMUNITY COLLEGE		UF N	UF GPA	FSU N	FSU GPA	USF N	USF GPA	FAU N	FAU GPA	FTU N	FTU GPA	UWF N	UWF GPA	SUS N	SUS GPA
BREVARD	a	100	2.42	24	2.53	27	2.56	2	2.45	319	2.81	2	2.38	474	2.70
	b	153	2.51	122	2.61	123	2.63	76	2.24	72	2.92	34	2.54	580	2.57
BROWARD	a	84	2.40	37	2.86	27	2.23	22	2.58	4	2.19	2	2.65	176	2.49
	b	140	2.67	132	2.76	79	2.54	865	2.39	0	- -	24	2.71	1240	2.48
CENTRAL FLORIDA	a	42	2.33	5	2.75	8	1.64	0	- -	18	3.03	1	2.50	74	2.46
	b	113	2.48	46	2.68	35	2.41	14	2.08	3	2.57	40	2.50	251	2.49
CHIPOLA	a	22	2.54	11	2.02	0	- -	0	- -	0	- -	3	2.46	36	2.37
	b	45	2.44	132	2.66	5	2.40	2	1.94	1	3.12	165	2.56	350	2.58
DAYTONA BEACH	a	31	2.83	11	2.23	4	3.00	2	3.03	109	2.80	0	- -	157	2.77
	b	85	2.64	76	2.56	47	2.74	34	2.52	23	2.91	17	2.56	282	2.64
EDISON	a	29	2.52	7	2.63	22	2.59	2	2.33	3	2.09	0	- -	63	2.53
	b	47	2.52	73	2.84	92	2.69	55	2.43	1	2.41	29	2.73	297	2.65
FLA. J.C. at JAX.	a	30	2.54	17	2.42	8	2.55	0	- -	22	2.63	1	2.43	78	2.54
	b	115	2.61	196	2.59	59	2.53	32	2.36	2	2.35	44	2.82	448	2.59
FLORIDA KEYS	a	9	2.31	1	- -	4	2.90	4	2.15	2	2.91	1	1.75	21	2.31
	b	6	2.36	12	2.57	24	2.40	21	2.48	3	3.56	6	2.62	72	2.51
GULF COAST	a	22	2.38	15	2.59	2	3.35	0	- -	1	2.59	17	2.39	57	2.48
	b	40	2.76	92	2.65	15	2.52	7	2.32	2	3.16	145	2.83	301	2.74
HILLSBOROUGH	a	0	- -	1	2.42	66	2.28	0	- -	0	- -	0	- -	67	2.28
	b	1	2.62	19	2.06	290	2.45	4	1.99	0	- -	0	- -	314	2.42
INDIAN RIVER	a	34	2.28	5	2.33	11	2.36	5	2.25	11	2.35	1	2.25	67	2.31
	b	48	2.49	31	2.66	43	2.51	96	2.29	2	2.46	17	2.54	237	2.44
LAKE CITY	a	35	2.04	3	3.06	0	- -	0	- -	1	2.19	0	- -	39	2.12
	b	85	2.67	23	2.93	4	2.14	5	2.14	2	2.66	34	2.26	153	2.59
LAKE-SUMTER	a	22	2.59	4	2.81	5	2.22	0	- -	52	2.71	0	- -	83	2.65
	b	44	2.44	43	2.52	22	2.60	4	2.52	14	3.05	5	2.17	132	2.55
MANATEE	a	50	2.49	11	2.70	53	2.50	3	2.64	5	2.95	0	- -	122	2.54
	b	74	2.52	102	2.67	240	2.69	31	2.47	0	- -	23	2.85	470	2.65

TABLE 11. continued

COMMUNITY COLLEGE		UF N	UF GPA	FSU N	FSU GPA	USF N	USF GPA	FAU N	FAU GPA	FTU N	FTU GPA	UWF N	UWF GPA	SUS N	SUS GPA
MIAMI-DADE	a	379	2.55	84	2.56	98	2.25	70	2.34	16	2.61	3	2.62	650	2.49
	b	670	2.67	621	2.67	455	2.57	969	2.35	2	2.93	81	2.67	2798	2.54
NORTH FLORIDA	a	17	2.43	14	2.60	4	0.66	0	- -	3	2.59	2	1.02	40	2.25
	b	50	2.25	171	2.38	19	2.32	2	2.19	0	- -	40	2.40	282	2.35
OKALOOSA-WALTON	a	13	2.85	11	2.52	4	2.68	0	- -	6	3.10	23	3.06	57	2.89
	b	23	2.78	63	2.74	9	2.50	1	3.54	0	- -	300	2.85	396	2.82
PALM BEACH	a	81	2.57	19	2.45	10	2.31	55	2.55	7	2.42	1	3.21	173	2.53
	b	182	2.55	155	2.74	51	2.59	741	2.34	2	3.63	7	2.89	1138	2.44
PENSACOLA	a	52	2.54	18	2.20	8	2.39	1	1.25	6	3.01	85	2.74	170	2.61
	b	54	2.61	101	2.81	20	2.59	9	2.92	2	2.97	1016	2.84	1202	2.82
POLK	a	48	2.47	9	2.49	43	2.47	0	- -	35	2.67	0	- -	135	2.52
	b	113	2.46	83	2.59	300	2.58	24	2.26	13	2.81	17	2.35	550	2.54
SANTA FE	a	99	2.29	7	1.76	9	2.18	1	3.53	14	2.41	2	2.48	132	2.28
	b	457	2.51	62	2.32	50	2.27	30	1.94	2	3.09	26	2.44	627	2.44
SEMINOLE	a	13	2.43	2	2.59	14	2.08	0	- -	271	2.57	1	2.83	301	2.54
	b	41	2.52	56	2.39	35	2.36	6	2.56	70	2.91	10	2.50	218	2.59
SOUTH FLORIDA	a	3	2.18	0	- -	3	3.24	0	- -	7	2.55	1	3.08	14	2.66
	b	7	2.18	16	2.76	25	2.68	9	2.26	1	3.17	11	2.20	69	2.52
ST. JOHN'S RIVER	a	30	2.40	0	- -	4	2.39	0	- -	13	2.39	0	- -	47	2.40
	b	84	2.59	58	2.55	24	2.44	17	1.88	2	2.40	25	2.78	210	2.53
ST. PETERSBURG	a	112	2.44	27	2.76	273	2.51	1	1.71	17	2.80	2	3.06	432	2.52
	b	249	2.72	273	2.67	1771	2.61	38	2.31	6	2.81	74	2.83	2411	2.63
TALLAHASSEE	a	5	2.35	42	2,12	1	2.00	0	- -	5	3.22	2	2.94	55	2.27
	b	4	2.38	337	2.59	5	2.41	2	2.94	1	3.46	9	2.46	358	2.59
VALENCIA	a	12	2.33	3	1.96	6	1.88	1	2.07	256	2.50	0	- -	278	2.47
	b	22	2.66	34	2.35	31	2.74	6	2.47	40	2.81	5	2.63	138	2.64
TOTAL	a	1374	2.47	388	2.49	714	2.41	169	2.44	1203	2.66	150	2.71	3998	2.53
	b	2952	2.59	3129	2.63	3873	2.58	3100	2.35	266	2.90	2204	2.76	15524	2.58

TABLE 12.
GRADE POINT AVERAGES (GPA) ATTAINED IN UNIVERSITIES BY COMMUNITY COLLEGE TRANSFER STUDENTS BY COMMUNITY COLLEGE OF ORIGIN AND UNIVERSITY OF ATTENDANCE

COMMUNITY COLLEGE	U F		FSU		USF		FAU		FTU		UWF		SUS	
	GPA	NO.	GPA	NO.	GPA	NO.	GPA	NO.	GPA	NO.	GPA	NO.	GPA	NO.
BREVARD	2.47	253	2.60	146	2.62	150	2.24	78	2.83	391	2.53	36	2.63	1054
BROWARD	2.57	224	2.78	169	2.46	106	2.40	887	2.19	4	2.71	26	2.48	1416
CENTRAL FLORIDA	2.44	155	2.68	51	2.27	51	2.08	14	2.97	21	2.50	41	2.48	325
CHIPOLA	2.47	67	2.61	143	2.40	5	1.94	2	3.12	1	2.56	168	2.56	386
DAYTONA BEACH	2.69	116	2.52	87	2.76	51	2.55	36	2.82	132	2.56	17	2.69	439
EDISON	2.52	76	2.82	80	2.67	114	2.43	57	2.17	4	2.73	29	2.63	360
FLA. J.C. at JAX.	2.59	145	2.58	213	2.53	67	2.36	32	2.61	24	2.81	45	2.58	526
FLORIDA KEYS	2.33	15	2.38	13	2.47	28	2.42	25	3.30	5	2.50	7	2.47	93
GULF COAST	2.63	62	2.64	107	2.62	17	2.32	7	2.97	3	2.78	162	2.70	358
HILLSBOROUGH	2.62	1	2.08	20	2.42	356	1.99	4	- -	0	- -	0	2.40	381
INDIAN RIVER	2.41	82	2.61	36	2.48	54	2.29	101	2.37	13	2.52	18	2.41	304
LAKE CITY	2.48	120	2.94	26	2.14	4	2.14	5	2.50	3	2.26	34	2.49	192
LAKE-SUMTER	2.49	66	2.55	47	2.53	27	2.52	4	2.78	66	2.17	5	2.59	215
MANATEE	2.51	124	2.67	113	2.65	293	2.48	34	2.95	5	2.85	23	2.63	592
MIAMI-DADE	2.63	1049	2.65	705	2.52	553	2.35	1039	2.65	18	2.67	84	2.53	3448
NORTH FLORIDA	2.29	67	2.40	185	2.03	23	2.19	2	2.50	3	2.33	42	2.34	322
OKALOOSA-WALTON	2.81	36	2.70	74	2.55	13	3.54	1	3.10	6	2.86	323	2.83	453
PALM BEACH	2.56	263	2.71	174	2.55	61	2.35	797	2.69	9	2.93	8	2.46	1312
PENSACOLA	2.58	106	2.72	119	2.53	28	2.75	10	3.00	8	2.83	1101	2.80	1372
POLK	2.46	161	2.58	92	2.57	343	2.26	24	2.71	48	2.35	17	2.54	685
SANTA FE	2.47	556	2.26	69	2.26	59	1.99	31	2.49	16	2.44	28	2.41	759
SEMINOLE	2.50	54	2.39	58	2.28	49	2.56	6	2.64	341	2.53	11	2.56	519
SOUTH FLORIDA	2.18	10	2.76	16	2.74	28	2.26	9	2.63	8	2.27	12	2.55	83
ST. JOHN'S RIVER	2.54	114	2.55	58	2.43	28	1.88	17	2.39	15	2.78	25	2.50	257
ST. PETERSBURG	2.63	361	2.68	300	2.60	2044	2.29	39	2.80	23	2.84	76	2.62	2843
TALLAHASSEE	2.36	9	2.54	379	2.34	6	2.94	2	3.26	6	2.55	11	2.55	413
VALENCIA	2.54	34	2.32	37	2.60	37	2.41	7	2.54	296	2.63	5	2.52	416
TOTAL	2.55	4326	2.61	3517	2.56	4587	2.36	3270	2.70	1469	2.75	2354	2.57	19523

In viewing these data one should bear in mind that numerous variables might relate to the achievement of transfer students in the university other than lower division preparation. These variables include such things as whether students have chosen a major appropriate to their interests and abilities, the extent of screening that has taken place in the community college of origin, and the extent to which students have completed lower division prerequisite requirements. Therefore, it is not appropriate to infer that one college is doing a better job than the other in preparing students for the upper division simply because students from one community college maintain a higher grade point average than students from another community college. However, these grade point averages may indicate areas where articulation problems exist.

Tables 13 through 18 show numbers of community college transfer students by major at each of the universities, and for each major the percent of students who have less than a 2.00 grade point average and the percent who have a 2.00 or higher grade point average. Also the mean grade point average for each major is indicated. These data will be presented for each university.

TABLE 13.
NUMBERS AND ACHIEVEMENT OF COMMUNITY COLLEGE TRANSFER STUDENTS BY MAJOR AT THE UNIVERSITY OF FLORIDA

MAJOR	Number	% less than 2.00	% 2.00 or greater	Mean G.P.A.
ACCOUNTING	141	19.1	80.8	2.38
ADVERTISING	85	14.1	85.8	2.48
AEROSPACE ENGINEERING	20	14.1	85.8	2.52
AGRICULTURE ENGINEERING	16	18.7	81.2	2.73
AGRICULTURE-GENERAL	1	00.0	100.0	2.36
AGRONOMY	14	7.2	92.8	2.70
ANIMAL SCIENCE	20	20.0	80.0	2.46
ANIMAL SCIENCES-GENERAL	9	33.3	66.6	2.05
ANTHROPOLOGY	36	25.0	75.0	2.36
ARCHITECTURE	172	8.1	91.8	2.70
ART	77	9.0	91.0	2.55
ARTS AND SCIENCES	20	25.0	75.0	2.34
BACTERIOLOGY	6	16.6	83.3	2.50
BIOCHEMISTRY	1	100.0	00.0	1.35
BIOLOGICAL SCIENCES	10	20.0	80.0	2.29
BOTANY	5	00.0	100.0	2.62
BROADCASTING	32	37.5	62.5	2.26
BUILDING CONSTRUCTION	75	15.2	84.7	2.37
BUSINESS ADMINISTRATION	2	50.0	50.0	2.18
BUSINESS ADMINISTRATION-GENERAL	100	31.0	69.0	2.17
BUSINESS EDUCATION	21	00.0	100.0	2.83
CHEMICAL ENGINEERING	27	14.8	85.1	2.63
CHEMISTRY	74	25.6	74.3	2.53
CIVIL ENGINEERING	70	20.0	80.0	2.39
COMMUNICATIONS	4	25.0	75.0	2.72
COMPUTER INFORMATION	5	20.0	80.0	2.87
ECONOMICS	33	15.1	84.8	2.57
EDUCATION-ADMINISTRATION	5	20.0	80.0	2.65
EDUCATION-COUNSELOR	3	00.0	100.0	3.29
EDUCATION-ELEMENTARY	302	5.6	94.3	2.92
EDUCATION-FOUNDATIONS	18	00.0	100.0	3.31
EDUCATION-GENERAL	78	5.1	94.8	2.78
EDUCATION-PERSONNEL SERVICES	19	00.0	100.0	3.15
EDUCATION-SECONDARY	140	5.7	94.2	2.81
EDUCATION-SPECIAL EDUCATION	36	00.0	100.0	3.14
EDUCATION-VOCATIONAL,TECHNICAL, ADULT	23	8.6	91.3	2.83
ELECTRICAL ENGINEERING	154	11.6	88.3	2.75
ENGINEERING GRAPHICS	4	25.0	75.0	2.47
ENGINEERING SCIENCE AND MECHANICS	9	22.2	77.7	2.40
ENGLISH	118	12.7	87.2	2.67
ENTOMOLOGY	6	16.6	83.3	2.50
ENVIRONMENTAL ENGINEERING	5	00.0	100.0	2.93
FINANCE AND INSURANCE	27	22.2	77.7	2.40
FOOD SCIENCES-GENERAL	8	37.5	62.5	2.10

TABLE 13. continued

MAJOR	Number	% less than 2.00	% 2.00 or greater	Mean G.P.A.
FOREIGN LANGUAGE EDUCATION	1	00.0	100.0	2.77
FORESTRY	71	33.8	66.1	2.27
FRENCH	14	7.1	92.8	3.04
FRUIT CROPS	8	00.0	100.0	2.93
GEOGRAPHY	13	00.0	100.0	2.91
GEOLOGY	15	20.0	80.0	2.49
GERMAN	5	00.0	100.0	2.98
GREEK	1	00.0	100.0	2.81
HEALTH AND HOSPITAL ADMINISTRATION	1	00.0	100.0	3.65
HEALTH RELATED PROFESSIONS	1	00.0	100.0	2.78
HISTORY	103	17.4	82.5	2.60
HUMANITIES	1	00.0	100.0	2.52
INDUSTRIAL AND SYSTEMS ENGINEERING	23	26.0	73.9	2.48
INSURANCE	1	00.0	100.0	2.36
INTERIOR DESIGN	31	19.3	80.6	2.39
ITALIAN	1	100.0	00.0	1.57
JOURNALISM	118	17.7	82.2	2.46
LANDSCAPE ARCHITECTURE	16	00.0	100.0	2.54
LATIN AMERICAN STUDIES	2	00.0	100.0	3.26
LAW	35	25.7	74.2	2.21
LIBRARY SCIENCE	19	00.0	100.0	3.43
MANAGEMENT AND BUSINESS LAW	71	16.9	83.0	2.36
MARKETING	50	18.0	82.0	2.38
MATHEMATICS	63	17.4	82.5	2.64
MECHANICAL ENGINEERING	84	15.4	84.5	2.59
MECHANIZED AGRICULTURE	3	33.3	66.6	2.44
MEDICAL TECHNOLOGY	26	19.2	80.7	2.38
MEDICINE	24	33.3	66.6	2.10
METALURGICAL-MATERIALS ENGINEERING	6	00.0	100.0	3.04
MICROBIOLOGY	7	14.2	85.7	2.88
MUSIC	26	7.6	92.3	2.80
NUCLEAR ENGINEERING SCIENCES	19	10.5	89.4	2.62
NURSING	78	14.1	85.8	2.69
OCCUPATIONAL THERAPY	15	00.0	100.0	3.12
ORNAMENTAL HORTICULTURE	21	23.8	76.1	2.50
PHARMACOLOGY	1	00.0	100.0	2.22
PHARMACY	100	27.0	73.0	2.37
PHILOSOPHY	13	46.1	53.8	2.10
PHYS ED, HEALTH AND RECREATION	4	25.0	75.0	2.06
PHYSICAL EDUCATION-WOMEN	11	9.0	90.9	2.31
PHYSICAL HEALTH AND ATHLETICS	148	13.5	86.4	2.54
PHYSICAL THERAPY	17	23.5	76.4	2.48
PHYSICS	8	00.0	100.0	3.13
PLANT PATHOLOGY	4	50.0	50.0	2.50
PLANT SCIENCES-GENREAL	1	00.0	100.0	2.34
POLITICAL SCIENCE	189	23.2	76.7	2.38
POULTRY SCIENCE	3	00.0	100.0	3.57
PSYCHOLOGY	181	19.8	80.1	2.63
PUBLIC RELATIONS	16	6.2	93.7	2.41
REAL ESTATE AND URBAN LAND	17	35.2	64.7	2.05
REHABILITATION COUNSELING	4	00.0	100.0	3.77

TABLE 13. continued

MAJOR	Number	% less than 2.00	% 2.00 or greater	Mean G.P.A.
RELIGION	3	33.3	66.6	2.51
RUSSIAN	1	100.0	00.0	1.66
SCHOOL ART	3	00.0	100.0	3.09
SOCIOLOGY	135	22.2	77.7	2.39
SOILS	3	00.0	100.0	2.96
SPANISH	13	7.6	92.3	2.90
SPEECH	39	10.2	89.7	2.79
STATISTICS	2	50.0	50.0	2.53
UNDECIDED	48	27.0	72.9	2.37
VEGETABLE CROPS	2	50.0	50.0	2.06
VETERINARY SCIENCE	39	41.0	58.9	2.23
ZOOLOGY	79	30.3	69.6	2.25
UNCLASSIFIED	240	32.0	67.9	2.23
TOTAL	4325	17.5	82.4	2.58

Florida State University

There were 3517 community junior college transfer students enrolled at FSU. Some 771 (21%) of these students were counted in four of the 171 possible majors at Florida State. These majors were elementary education (289), accounting (170), criminology (138), and management (152). A total of 80 diverse majors enrolled fewer than ten students each.

The top grade point averages in majors with ten or more students were in interrelated area habilitative sciences (3.31), child development (3.17), industrial education (3.02), and clinical psychology (3.00). No major with ten or more transfer enrollees showed a G.P.A. of less than 2.01.

Only five diverse majors with ten or more transfer enrollees showed 25% or more of their students earning less than a 2.00 grade point average. By contrast, fully 19 majors including education and five arts programs had 90% or more of their students meeting or exceeding the 2.00 criterion.

The mean grade point average across majors was 2.61. While there is no logical threshold for numbers of students required to make inferences about student performance, more data should be obtained for some majors. Specifically, 3 out of 5 students in management and 5 out of 8 students in medical technology each had an average of less than 2.00. If ratios of this magnitude were found with larger numbers of students, problems would surely be indicated.

TABLE 14.
NUMBERS AND ACHIEVEMENT OF COMMUNITY COLLEGE TRANSFER STUDENTS BY MAJOR AT THE FLORIDA STATE UNIVERSITY

MAJOR	number	% less than 2.00	% 2.00 or greater	Mean G.P.A.
ACCOUNTING	170	18.8	81.1	2.54
ADVERTISING AND PUBLIC RELATIONS	34	11.7	88.2	2.36
ADVERTISING DESIGN	18	16.6	83.3	2.58
AMERICAN STUDIES	5	20.0	90.0	2.52
ANTHROPOLOGY	30	10.0	90.0	2.85
ARCHEOLOGY	2	00.0	100.0	2.46
ART EDUCATION	29	00.0	100.0	2.91
ART HISTORY/DOCTORAL	2	50.0	50.0	2.53
ASIAN STUDIES	6	00.0	100.0	2.86
BACTERIOLOGY	7	71.4	28.5	1.46
BIOLOGICAL OCEANOGRAPHY	1	100.0	00.0	0.00
BIOLOGY	82	25.6	74.3	2.24
BOTANY	3	33.3	66.6	1.72
BROADCAST COMMUNICATIONS	20	20.0	80.0	2.58
BUSINESS ADMINISTRATION/GRADUATE	10	10.0	90.0	2.36
BUSINESS EDUCATION	17	5.8	94.1	2.59
CHEMISTRY/UNDERGRADUATE	11	9.0	90.9	2.58
CHILD DEVELOPMENT	10	10.0	90.0	3.17
CHORAL/UNDERGRADUATE	27	00.0	100.0	2.98
CLASSICS	2	00.0	100.0	3.30
CLINICAL PSYCHOLOGY	35	5.7	94.2	3.00
CLOTHING AND TEXTILES	1	00.0	100.0	2.12
CLOTHING AND TEXTILES/FAMILY RELATIONS	2	00.0	100.0	2.67
COMPREHENSIVE HEALTH PLANNING	1	00.0	100.0	3.50
CONSTRUCTIVE DESIGN	1	00.0	100.0	3.24
CORRECTIONS	100	14.0	86.0	2.48
CREATIVE ART	3	00.0	100.0	3.10
CRIMINALISTICS	38	42.1	57.8	2.18
CURRICULUM DEVELOPMENT	1	100.0	00.0	1.30
DANCE	14	7.1	92.8	2.87
DEAF EDUCATION	9	11.1	88.8	2.37
DESIGN	9	11.1	88.8	2.50
DIETETICS	9	22.2	77.7	2.49
EARLY CHILDHOOD EDUCATION	18	5.5	94.4	2.95
ECONOMICS	17	11.7	88.2	2.66
ELEMENTARY EDUCATION	289	5.8	94.1	2.94
ENGINEERING SCIENCE	9	22.2	77.7	2.33
ENGLISH AND BUSINESS	1	00.0	100.0	2.26
ENGLISH AND LIBRARIANSHIP	2	50.0	50.0	2.49
ENGLSIH EDUCATION	55	5.6	94.3	2.72
ENGLISH/CREATIVE WRITING	11	00.0	100.0	2.80
ENGLISH/LINGUISTICS	6	16.6	83.3	2.27
ENGLISH/LITERATURE	33	9.0	91.1	2.80
FASHION DESIGN	6	16.6	83.3	2.40
FASHION ILLUSTRATION	4	00.0	100.0	2.68
FASHION MERCHANDISING	54	12.9	87.0	2.59

TABLE 14. continued

MAJOR	Number	% less than 2.00	% 2.00 or greater	Mean G.P.A.
FINANCE	49	14.2	85.7	2.55
FOOD & NUTRITION SCIENCE	1	100.0	00.0	0.00
FOOD & NUTRITION	5	20.0	80.0	2.81
FOREIGN LANGUAGE EDUCATION	3	00.0	100.0	2.81
FRENCH	8	00.0	100.0	3.32
GENERAL HOME ECONOMICS	4	00.0	100.0	3.11
GENERAL/EXPERIMENTAL PSYCHOLOGY	78	12.8	87.2	2.57
GENETICS	3	00.0	100.0	2.72
GEOCHEMISTRY	3	00.0	100.0	2.81
GEOGRAPHY	7	00.0	100.0	2.84
GEOLOGICAL OCEANOGRAPHY	1	100.0	00.0	1.80
GEOLOGY	20	15.0	85.0	2.83
GERMAN	2	00.0	100.0	3.05
GOVERNMENT	95	13.6	86.3	2.60
GRAPHICS	9	11.1	88.9	2.77
HEALTH EDUCATION	1	00.0	100.0	2.29
HIGHER EDUCATION	1	00.0	100.0	2.87
HISTORY	47	17.0	83.0	2.43
HISTORY AND CRITICISM OF ART	4	00.0	100.0	2.88
HISTORY AND LIBRARIANSHIP	5	00.0	100.0	3.23
HOME ECONOMICS ED AND RELATED AREAS	1	00.0	100.0	2.75
HOME ECONOMICS EDUCATION	64	3.0	97.0	2.85
HOTEL AND RESTAURANT MANAGEMENT	56	12.5	87.5	2.28
HOUSING AND INTERIOR DESIGN	38	18.4	81.5	2.53
HUMANITIES	15	6.6	93.4	2.70
INDUSTRIAL EDUCATION	35	5.7	94.3	3.02
INSTRUCTIONAL SYSTEMS	1	00.0	100.0	3.67
INSTRUMENTAL/UNDERGRADUATE	28	3.5	96.5	2.94
INTER-AMERICAN STUDIES	1	00.0	100.0	2.39
INTERDIVISIONAL PROG-ARTS & SCIENCES	2	00.0	100.0	2.50
INTERNATIONAL AFFAIRS	37	5.4	94.6	2.53
INTERRELATED AREAS	10	00.0	100.0	3.31
LAW	12	42.0	58.0	2.21
LAW ENFORCEMENT	159	11.9	88.1	2.58
LIBRARY SCIENCE	21	14.2	85.8	2.57
MANAGEMENT	152	17.7	82.3	2.36
MARINE BIOLOGY	9	11.1	88.9	2.33
MARKETING MANAGEMENT	81	18.5	81.5	2.27
MATHEMATICS	33	15.1	84.9	2.63
MATHEMATICS EDUCATION	19	10.6	89.4	2.80
MEDICAL TECHNOLOGY	8	62.5	37.5	1.96
MENTAL RETARDATION	79	7.5	92.5	2.81
METEOROLOGY	8	12.5	87.5	2.50
MULTINATIONAL BUSINESS OPERATIONS	5	00.0	100.0	2.94
MUSIC-INTERDIVISIONAL ART & SCIENCE	5	00.0	100.0	3.15
MUSIC COMPOSITION	1	00.0	100.0	4.00
MUSIC EDUCATION/GRADUATE	4	00.0	100.0	3.05

TABLE 14. continued

MAJOR	Number	% less than 2.00	% 2.00 or greater	Mean G.P.A.
MUSIC THEORY	2	00.0	100.0	2.65
MUSIC THERAPY	11	10.0	90.0	2.79
NON-DEGREE/SPECIAL STUDENT	19	36.8	63.2	2.12
NUCLEAR CHEMISTRY	0	00.0	00.0	0.00
NURSING	106	4.7	95.3	2.75
OFFICE MANAGEMENT	5	60.0	40.0	1.90
ORGAN	3	33.3	66.7	2.34
PAINTING	19	5.2	94.8	2.89
PHILOSOPHY	13	7.6	92.4	2.90
PHOTOGRAPHY AND CINEMATOGRAPHY	32	15.6	84.4	2.48
PHYSICAL CHEMISTRY	0	00.0	00.0	0.00
PHYSICAL EDUCATION	135	18.5	81.5	2.36
PHYSICS	7	00.0	100.0	3.03
PIANO	5	00.0	100.0	3.24
PRE-LAW PROGRAM	40	20.0	80.0	2.45
PREPROFESSIONAL LIBRARIANSHIP	1	00.0	100.0	3.21
READING	1	00.0	100.0	3.50
RECREATION	27	14.8	85.2	0.00
RELIGION	5	20.0	80.0	2.45
RESEARCH AND DEVELOPMENT	5	60.0	40.0	1.77
RESEARCH AND TESTING	1	00.0	100.0	3.87
RHETORIC & PUBLIC ADDRESS	6	16.7	83.3	2.41
RISK AND INSURANCE	9	11.1	88.9	2.62
RUSSIAN	1	00.0	100.0	2.48
SCHOOL LIBRARIANSHIP	3	00.0	100.0	2.63
SCHOOL PSYCHOLOGY	3	00.0	100.0	3.29
SCIENCE EDUCATION	18	33.3	66.7	2.18
SCULPTURE	4	00.0	100.0	2.81
SECRETARIAL SCIENCE	1	00.0	100.0	2.00
SOCIAL SCIENCE	6	00.0	100.0	2.69
SOCIAL STUDIES EDUCATION	78	14.1	85.9	2.58
SOCIAL WELFARE	2	50.0	50.0	2.10
SOCIAL WORK/GRADUATE	3	00.0	100.0	3.77
SOCIAL WORK/UNDERGRADUATE	135	8.1	91.9	2.69
SOCIOLOGY	51	15.6	84.4	2.67
SPANISH	12	9.0	91.0	3.07
SPEECH EDUCATION	7	00.0	100.0	2.82
SPEECH PATHOLOGY-AUDIOLOGY	36	8.3	91.7	2.79
STATISTICS	2	00.0	100.0	2.42
STRINGS	4	00.0	100.0	3.20
TEXTILES	2	00.0	100.0	2.58
THEATRE	29	13.7	86.3	2.65
TRANSPORTATION PLANNING	1	00.0	100.0	3.34
UNDECLARED OR UNDECIDED	93	13.9	86.1	2.44
VISUALLY HANDICAPPED	26	3.8	96.2	0.00
VOCATIONAL EDUCATION	3	00.0	100.0	3.34
VOICE	5	00.0	100.0	3.05
ZOOLOGY	2	50.0	50.0	2.38
UNCLASSIFIED	94	18.0	82.0	2.52
TOTAL	3517	12.9	87.0	2.61

University of South Florida

Almost 27% of the 4587 community college transfer students in the University of South Florida were enrolled in three majors: elementary education (537), management (345), and accounting (341). Enrollments of less than 10 students were found in 32 of the 86 majors.

The highest grade point averages (in majors with enrollments of ten or more) were found in engineering's five-year program (3.49), guidance (3.45), library-audiovisual (3.12), and English education (3.14). The lowest grade point average (ten or more students) was in bacteriology (1.94). All other programs with ten or more students showed grade point averages of 2.00 or higher.

There were nine majors at USF in which 25% or more of the transfer students enrolled failed to attain a grade point average of 2.00 or higher. Conversely, 15 majors showed 90% or more of the enrollees to have earned at least a 2.00 grade point average. No pattern appeared in the majors represented in the less successful category, but education-related majors strongly predominated in the 2.00 or better category.

The mean grade point average of all transfer students was 2.55. This 2.55 grade point average figure would seem to indicate that the majority of transfer students are doing acceptable work at South Florida.

TABLE 15.
NUMBERS AND ACHIEVEMENT OF COMMUNITY COLLEGE TRANSFER STUDENTS BY MAJOR AT THE UNIVERSITY OF SOUTH FLORIDA

MAJOR	Number	% less than 2.00	% 2.00 or greater	Mean G.P.A.
ACCOUNTANCY	2	00.0	100.0	3.15
ACCOUNTING	341	24.3	75.6	2.32
ADULT EDUCATION	3	00.0	100.0	2.94
ADVANCED BASIC STUDIES	2	00.0	100.0	2.97
AMERICAN STUDIES	10	20.0	80.0	2.63
ANTHROPOLOGY	26	7.6	92.3	2.68
ART	99	16.1	83.8	2.52
ART EDUCATION	72	6.9	93.0	2.72
ASTRONOMY	4	25.0	75.0	2.54
BACTERIOLOGY	10	50.0	50.0	1.94
BOTANY	15	13.3	86.6	2.38
BUSINESS ADMINISTRATION	5	20.0	80.0	2.43
BUSINESS AND OFFICE EDUCATION	47	2.1	97.8	2.88
CHEMISTRY	43	27.9	72.0	2.29
CLASSICS, ANCIENT STUDIES, MOD LANG	1	00.0	100.0	2.26
COLLEGE OF BASIC STUDIES	185	29.1	70.8	2.20
CONTINUING EDUCATION	6	00.0	100.0	3.30
DANCE	6	00.0	100.0	2.70
DISTRIBUTIVE EDUCATION	19	00.0	100.0	2.77
DIVISION OF SOCIAL SCIENCES	67	16.4	83.5	2.50
ECONOMICS SOC. AND BEH. SCI.	30	16.6	83.3	2.53
EDUCATION	2	00.0	100.0	3.85
EDUCATION-EMOTIONALLY DISTURBED	1	100.0	00.0	1.86
ELEMENTARY EDUCATION	537	7.6	92.3	2.95
ELEMENTARY-EARLY CHILDHOOD	90	5.5	94.4	3.06
ENGINEERING	185	20.5	79.4	2.41
ENGINEERING-FIVE YEAR	10	00.0	100.0	3.49
ENGINEERING EDUCATION JC	1	00.0	100.0	3.10
ENGINEERING TECHNOLOGY	100	26.0	74.0	2.36
ENGLISH	69	8.6	91.3	2.83
ENGLISH EDUCATION	69	11.5	88.4	2.67
ENGLISH JOURNALISM	17	5.8	94.1	2.84
ENGLISH-SPEECH	4	00.0	100.0	2.66
FINANCE	63	26.9	73.0	2.29
FRENCH	4	00.0	100.0	3.03
GEOGRAPHY	17	5.8	94.1	2.72
GEOLOGY	47	19.1	80.8	2.41
GERMAN	4	00.0	100.0	2.96
GUIDANCE	11	9.0	90.0	3.45
HISTORY	82	13.4	86.5	2.59
HUMANITIES	11	18.1	81.8	2.81
HUMANITIES EDUCATION	2	00.0	100.0	3.94
INTERNATIONAL RELATIONS	4	25.0	75.0	2.34
LATIN-AMERICAN STUDIES	3	00.0	100.0	3.07
LIBERAL STUDIES	5	00.0	100.0	3.52
LIBRARY AUDIOVISUAL-ELEMENTARY	18	5.5	94.4	3.12

TABLE 15. continued

MAJOR	Number	% less than 2.00	% 2.00 or greater	Mean G.P.A.
LIBRARY-AUDIOVISUAL-ENGLISH ED	25	4.0	96.0	3.14
LIBRARY-AUDIOVISUAL-EDUCATION	2	50.0	50.0	1.71
LINGUISTICS	1	00.0	100.0	3.20
MANAGEMENT	346	25.5	74.4	2.26
MARKETING	171	23.3	76.6	2.30
MASS COMMUNICATIONS	101	12.8	87.1	2.55
MATHEMATICS	54	18.5	81.4	2.64
MATHEMATICS EDUCATION	33	12.1	87.8	2.79
MEDICAL TECHNOLOGY	11	36.3	63.6	2.08
MENTAL RETARDATION EDUCATION	115	6.2	93.7	2.99
MODERN FOREIGN LANGUAGE EDUCATION	25	4.0	96.0	3.09
MODERN LANGUAGES	4	25.0	75.0	2.34
MUSIC	31	16.1	83.8	2.81
MUSIC EDUCATION	36	19.4	80.5	2.46
NATURAL SCIENCES	81	37.0	62.9	2.09
NON-WESTERN STUDIES PROGRAM	1	00.0	100.0	3.20
PHILOSOPHY	22	13.6	86.3	2.74
PHYSICAL EDUCATION	120	15.8	84.1	2.71
PHYSICS	16	18.7	81.2	2.53
PHYSICS EDUCATION	1	00.0	100.0	2.45
POLITICAL SCIENCE	134	17.1	82.8	2.48
POTENTIALLY HANDICAPPED	4	00.0	100.0	3.59
PSYCHOLOGY	209	19.6	80.3	2.46
READING EDUCATION	5	00.0	100.0	3.50
RELIGIOUS STUDIES	6	00.0	100.0	3.20
RUSSIAN	2	50.0	50.0	2.31
SCIENCE EDUCATION	33	12.1	87.8	2.67
SOCIAL SCIENCE EDUCATION	127	20.4	79.5	2.44
SOCIOLOGY	196	15.3	84.6	2.46
SPANISH	7	28.5	71.4	2.40
SPEECH	25	12.0	88.0	2.54
SPEECH PATHOLOGY EDUCATION	23	8.6	91.3	2.94
SPEECH-ENGLISH EDUCATION	16	00.0	100.0	3.00
SPEECH-THEATRE ARTS	36	8.7	91.2	2.63
ZOOLOGY	128	22.6	77.3	2.31
ZOOLOGY EDUCATION	7	14.2	85.7	2.80
UNCLASSIFIED	84	26.1	73.8	2.51
TOTAL	4587	17.3	82.6	2.71

University of West Florida

Since UWF is an upper division university, its community junior college transfer enrollment of 2354 comprises almost all of the enrollment.

The following majors were the most popular, making up 38% of the total enrollment: elementary education (306), accounting (183), management (156), psychology (135), and system science (115). No other major enrolled more than 100 transfer students. Of the 76 possible majors, 29 majors enrolled less than ten transfer students.

The transfer students achieved averages of 3.00 or higher in six majors (10 or more enrollees), and the program with the lowest mean grade point average showed 2.36. The only pattern apparent in either the lowest or highest average was that master's degree programs accounted for the highest four averages.

In only industrial technology and law enforcement did 25% or more of the students earn less than a 2.00 grade point average. Similarly, in only eight majors were 90% or more of the transfer enrollees able to maintain a 2.00 or better grade point average. The balance indicated here found expression in the 2.87 mean grade point average of all transfer students, which was the highest of all institutions studied.

TABLE 16,
NUMBERS AND ACHIEVEMENT OF COMMUNITY COLLEGE TRANSFER STUDENTS BY MAJOR AT THE UNIVERSITY OF WEST FLORIDA

MAJOR	Number	% less than 2.00	% 2.00 or greater	Mean G.P.A.
ACCOUNTING	183	10.9	89.0	2.77
AERONAUTICAL SYSTEMS	1	00.0	100.0	3.86
ART EDUCATION	23	00.0	100.0	2.69
ART HISTORY	1	00.0	100.0	3.00
BIOLOGY	62	11.2	88.7	2.67
BIOLOGY EDUCATION	11	18.1	81.8	2.59
BIOLOGY MASTERS	9	00.0	100.0	3.28
BUSINESS EDUCATION	30	13.3	86.6	2.81
CHEMISTRY	22	18.1	81.8	2.65
COMMUNICATION ARTS	62	11.2	88.7	2.73
COUNSELING	2	00.0	100.0	3.03
ECONOMICS	17	17.6	82.3	2.72
ECONOMICS MASTERS	1	00.0	100.0	2.36
EDUC LDRSHIP DEV	6	00.0	100.0	3.33
ELEMENTARY EDUCATION	306	2.6	97.3	2.91
ELEM EDUC MASTERS	17	00.0	100.0	3.41
ENGLISH	31	19.3	80.5	2.59
ENGLISH EDUCATION	33	15.1	84.8	2.86
ENGLISH MASTERS	6	00.0	100.0	3.42
FINANCE	12	8.3	91.6	2.58
FRENCH	2	00.0	100.0	3.38
FRENCH EDUCATION	2	00.0	100.0	3.29
GERMAN	2	00.0	100.0	3.48
HLTH, LEISURE & SPORTS	63	14.2	85.7	2.58
HISTORY	44	15.9	84.0	2.84
HISTORY EDUCATION	40	00.0	100.0	2.95
HISTORY MASTERS	15	00.0	100.0	3.29
HUMANITIES INTERDISC	15	20.0	80.0	2.68
INDUSTRIAL ARTS	23	00.0	100.0	3.05
INDUSTRIAL TECHNLGY	34	26.4	73.5	2.53
LAT AM STY INTERDISC	2	00.0	100.0	2.86
LAW ENFORC INTERDISC	24	33.3	66.6	2.36
M.A.T. ENGLISH	1	00.0	100.0	3.68
M.A.T. HISTORY	1	00.0	100.0	3.95
MBA-ECON	1	00.0	100.0	3.81
MANAGEMENT	156	15.3	84.6	2.56
MARINE SCIENCES	24	20.8	79.1	2.55

TABLE 16. continued

MAJOR	Number	% less than 2.00	% 2.00 or greater	Mean G.P.A.
MARKETING	100	14.0	86.0	2.50
MASTERS BUS ADM-MGT	48	00.0	100.0	3.33
MATHEMATICS	35	11.4	88.5	2.76
MEDICAL TECHNOLOGY	23	13.0	86.9	2.51
MUSIC	9	11.1	88.8	2.71
MUSIC EDUCATION	3	00.0	100.0	2.92
PHILOSOPHY	16	00.0	100.0	3.00
PHYSICAL ELECTRONICS	3	00.0	100.0	2.37
PHYSICAL HEALTH & RECRE	69	5.7	94.2	2.58
PHYSICS	9	33.3	66.6	2.69
POLITICAL SCIENCE	64	23.4	76.5	2.52
POL SCI EDUCATION	2	00.0	100.0	2.45
POL SCIENCE MASTERS	13	00.0	100.0	3.14
PRE-MED/PRE-DENTAL	11	9.0	90.9	2.67
PSYCHOLOGY	135	9.6	90.3	2.80
PSYCHOLOGY MASTERS	23	00.0	100.0	3.28
RELIGION	1	00.0	100.0	2.49
RELIGIOUS STUDIES	3	00.0	100.0	2.92
SCIENCE INTERDISC	9	33.3	66.6	2.13
SECONDARY SPEECH EDU	3	00.0	100.0	3.25
SECONDARY SPEECH ED	1	00.0	100.0	2.75
SOCIAL WELFARE	53	11.3	88.6	2.49
SOCIAL SCI INTERDISC	47	6.3	93.6	2.82
SOCIOLOGY	30	13.3	86.6	2.67
SPANISH	11	00.0	100.0	3.07
SPANISH EDUCATION	3	00.0	100.0	3.26
SPEC EDUC INTERDISC	79	10.1	89.8	2.71
SPEC STU BUSINESS	9	00.0	100.0	2.86
SPEC STU EDUCATION	21	14.2	85.7	2.85
SPEC STU HUMANITIES	7	00.0	100.0	3.20
SPEC STU SCIENCE	6	16.6	83.3	2.21
SPEC STU SOC SCI	14	7.1	92.8	2.78
STUDIO ART	36	13.8	86.1	2.50
SYSTM SCI-COMMERCIAL	115	10.4	89.5	3.33
SYSTM SCI-SCIENTIFIC	27	00.0	100.0	3.33
THEATRE ARTS	10	10.0	90.0	2.79
UNDETERMINED	2	00.0	100.0	2.48
VOCATIONAL EDUCATION	11	00.0	100.0	2.93
TOTAL	2354	10.1	89.9	2.87

Florida Technological University

Only two majors of the 74 possible at Florida Technological University enrolled 100 or more transfer students. These were elementary education (193) and business management (117). This total represented approximately 21% of the 1472 community junior college transfer students in FTU. Thirty-five programs enrolled less than ten students.

The top grade point averages in programs enrolling ten or more students included four education majors and one "undecided" with averages ranging from 3.59 to 3.01. The lowest average was no less than 2.24 (business administration) and only four programs showed less than 2.42. Only six programs had 25% or more of the transfer enrollees earning less than 2.00 grade point averages, and one-third of the programs had 90% or more of their transfer students achieving at least a 2.00 grade point average. Transfer students enjoyed the greatest academic success in education and science majors. The mean grade point average of all students for FTU's community college transfer students was 2.65.

TABLE 17.
NUMBERS AND ACHIEVEMENT OF COMMUNITY COLLEGE TRANSFER STUDENTS BY MAJOR AT THE FLORIDA TECHNOLOGICAL UNIVERSITY

MAJOR	Number	% less than 2.00	% 2.00 or greater	Mean G.P.A.
ACCOUNTANCY	77	15.5	84.4	2.63
ART	18	11.1	88.8	2.91
BIOLOGY	13	7.6	92.3	2.49
BOTANY	5	20.0	80.0	2.16
BUSINESS ADMINISTRATION	29	27.5	72.4	2.24
BUSINESS ECONOMICS	11	9.0	90.9	2.94
BUSINESS EDUCATION	15	6.6	93.3	3.08
BUSINESS MANAGEMENT AND ADMINISTRATION	117	12.8	87.1	2.50
CHEMISTRY	12	25.0	75.0	2.43
COMMUNICATIONS	55	16.3	83.6	2.42
COMPUTER SCIENCE	36	22.2	77.7	2.49
DISTRIBUTIVE EDUCATION	7	14.2	85.7	2.56
ELECTRICAL ENGINEERING	37	8.1	91.8	2.70
ELEMENTARY EDUCATION	193	2.0	97.9	3.09
ENGLISH	21	14.2	85.7	2.72
ENGLISH LANGUAGE ARTS EDUCATION	52	7.5	92.4	2.94
ENVIRONMENTAL ENGINEERING	8	00.0	100.0	2.59
FIANACE	29	10.3	89.6	2.59
FOREIGN LANGUAGE EDUCATION	4	00.0	100.0	3.20
HEALTH PROFESSIONS-GENERAL	8	25.0	75.0	2.03
HISTORY	22	18.1	81.8	2.57
HUMANITIES	24	8.3	91.6	2.79
INDUSTRIAL ENGINEERING	11	18.1	81.8	2.74
LANGUAGES-COMBINATION	4	00.0	100.0	3.42
LIBRARY SCIENCE	1	00.0	100.0	3.11
MARKETING	54	12.9	87.0	2.49
MATHEMATICS EDUCATION	30	3.3	96.6	2.80
MECHANICAL ENGINEERING	19	26.3	73.6	2.54
MICROBIOLOGY	8	12.5	87.5	2.63
MUSIC	12	16.6	83.3	2.76
MUSIC EDUCATION	1	00.0	100.0	2.74
PHYSICAL EDUCATION	102	6.5	93.4	2.73
POLITICAL SCIENCE AND GOVERNMENT	36	13.8	86.1	2.63
PRE-LAW-BUSINESS ADMINISTRATION	4	00.0	100.0	3.26
PRE-LAW-HISTORY	13	00.0	100.0	2.76
PRE-LAW-POLITICAL SCIENCE	19	31.5	68.4	2.25
PRE-DENTAL	2	00.0	100.0	2.73
PRE-MEDICAL	1	00.0	100.0	3.91
PRE-NURSING	3	66.6	33.3	2.01
PRE-PHARMACY	1	00.0	100.0	3.00
PRE-VETERINARY MEDICINE	4	00.0	100.0	2.92
PSYCHOLOGY	65	4.6	95.3	2.71
QUANTITATIVE BUSINESS ANALYSIS	1	00.0	100.0	2.82

TABLE 17. continued

MAJOR	Number	% less than 2.00	% 2.00 or greater	Mean G.P.A.
SCIENCE EDUCATION	28	7.1	92.8	2.93
SOCIOLOGY	59	10.1	89.8	2.69
SPEECH EDUCATION	2	50.0	50.0	2.77
STATISTICS	6	00.0	100.0	3.30
THEATRE	5	00.0	100.0	2.76
UNDECIDED-BUSINESS ADMINISTRATION	28	25.0	75.0	2.56
UNDECIDED-EDUCATION	19	00.0	100.0	3.46
UNDECIDED-ENGINEERING	2	100.0	00.0	1.96
UNDECIDED-GENERAL STUDIES	39	2.5	97.4	2.82
UNDECIDED-HUMANITIES AND FINE ARTS	2	50.0	50.0	2.44
UNDECIDED-NATURAL SCIENCES	14	14.3	85.7	2.57
UNDECIDED-NO MAJOR	42	16.7	83.4	2.60
UNDECIDED-SOCIAL SCIENCES	8	25.0	75.0	2.44
ZOOLOGY	11	36.3	63.6	2.24
UNCLASSIFIED	20	15.0	85.0	2.50
TOTAL	1472	11.6	88.3	2.65

Florida Atlantic University

Like UWF, FAU is an upper division university. It's community junior college transfer enrollment is, therefore, a major part of the student body.

The three majors of elementary education (564), general management (219), and accounting (242) comprised 31% of the community college transfer student enrollment of 3271. No other major enrolled as many as 100 of these students. Further, only eight majors counted less than 10 enrollees, indicating an unusual balance of enrollment across the 56 possible majors.

The highest grade point averages (10 or more enrollees), and the only ones above 3.00, were recorded in two graduate programs, curriculum and instruction, and guidance. Only one program (mechanical engineering) showed an average below 2.00, but seven were between 2.00 and 2.10 with science-math programs predominating. Additionally, in 27 programs 25% or more of the transfer enrollees did not have at least a 2.00 average although ten programs had 90% or more transfer students attaining at least a 2.00 grade point average. Altogether the mean grade point average of community junior college transfer students at FAU was 2.43, the lowest figure for any of the six universities studied.

The performance of transfer students in several of FAU's majors including mechanical engineering, social psychology, management science, real estate, general management, and electrical engineering warrants further study.

TABLE 18.
NUMBERS AND ACHIEVEMENT OF COMMUNITY COLLEGE TRANSFER STUDENTS BY MAJOR AT THE FLORIDA ATLANTIC UNIVERSITY

MAJOR	Number	% less than 2.00	% 2.00 or greater	Mean G.P.A.
ACCOUNTING	242	30.5	69.4	2.26
ADMINISTRATION PLUS SUPERVISION	4	00.0	100.0	3.12
ANTHROPOLOGY	24	25.0	75.0	2.63
ART	78	25.6	74.3	2.33
ART EDUCATION	31	19.3	80.6	2.33
BIOLOGICAL SCIENCES	112	25.8	74.1	2.35
BUSINESS ADMINISTRATION	34	2.9	97.0	2.85
BUSINESS EDUCATION	24	8.3	91.6	2.54
CHEMISTRY	39	41.0	58.9	2.02
COLLEGE	35	45.7	54.2	2.10
COMPUTER SYSTEMS	73	38.3	61.6	2.09
CURRICULUM AND INSTRUCTION	73	1.3	98.6	3.08
DISTRIBUTIVE EDUCATION	24	37.5	62.5	2.14
ECONOMICS	10	20.0	80.0	2.48
ELECTRICAL ENGINEERING	40	45.0	55.0	2.09
ELEMENTARY EDUCATION	564	14.1	85.8	3.08
ENGLISH	91	29.6	70.3	2.34
ENGLISH EDUCATION	52	30.7	69.2	2.29
FINANCE	63	19.0	80.9	2.40
FOREIGN LANGUAGE EDUCATION	11	36.3	63.6	2.25
FOUNDATIONS OF EDUCATION	2	00.0	100.0	2.87
FRENCH	4	00.0	100.0	3.06
GENERAL MANAGEMENT	219	39.2	60.7	2.03
GEOGRAPHY	29	10.3	89.6	2.49
GERMAN	4	00.0	100.0	3.59
GUIDANCE	16	00.0	100.0	3.21
GUIDANCE AND COUNSELING	1	00.0	100.0	3.57
HISTORY	104	28.8	71.1	2.32
HUMAN RESOURCES MANAGEMENT	45	15.5	84.4	2.39
INTERNATIONAL BUSINESS	15	26.6	73.3	2.14
JUNIOR HIGH SCHOOL TECHNICIAN	16	6.2	93.7	2.58
LAW ENFORCEMENT	74	25.6	74.3	2.16
LINGUISTICS	16	6.2	93.7	2.07
MARKETING	89	28.0	71.9	2.35
MANAGEMENT SCIENCE	23	52.1	47.8	2.07
MATHEMATICS	54	35.1	64.8	2.21
MATHEMATICS EDUCATION	29	27.5	72.4	2.23
MECHANICAL ENGINEERING	10	90.0	10.0	1.41
MUSIC	47	21.2	78.7	2.56
MUSIC EDUCATION	7	28.5	71.4	2.65
OCEAN ENGINEERING	93	38.7	61.2	2.16
PHILOSOPHY	23	30.4	69.5	2.14
PHYSICAL EDUCATION	116	23.2	76.6	2.32
PHYSICS	26	19.2	80.7	2.58
POLITICAL SCIENCE	81	30.8	69.1	2.13

TABLE 18. continued

MAJOR	Number	% less than 2.00	% 2.00 or greater	Mean G.P.A.
PSYCHOLOGY	84	32.1	67.8	2.29
PUBLIC ADMINISTRATION	9	11.1	88.8	2.74
REAL ESTATE	3	66.6	33.3	2.39
SCIENCE EDUCATION	21	28.5	71.4	2.41
SOCIAL PSYCHOLOGY	74	41.8	58.1	2.07
SOCIAL STUDIES EDUCATION	117	23.9	76.0	2.35
SOCIAL WELFARE	43	32.5	67.4	2.18
SOCIOLOGY	52	32.6	67.3	2.14
SPANISH	6	33.3	66.6	2.41
SPEECH	29	31.0	68.9	2.35
THEATRE	44	25.0	75.0	2.52
TOTAL	3271	26.0	73.9	2.43

Florida Twelfth Grade Test Scores and Academic Performance of Transfer Students

Previous studies, such as Nickens (1970), have been conducted to determine the relationship of Florida Twelfth Grade Test scores and students' performance in senior institutions. Typically, this relationship has been found to be very small. However, these studies have assumed a linear relationship between Florida Twelfth Grade scores and grade point averages. The literature does not indicate that studies have been conducted that would identify possible thresholds for test scores; that is, scores which would separate satisfactory levels of achievement from unsatisfactory levels. One of the purposes of this study was to determine if such thresholds existed for Florida Twelfth Grade Test scores.

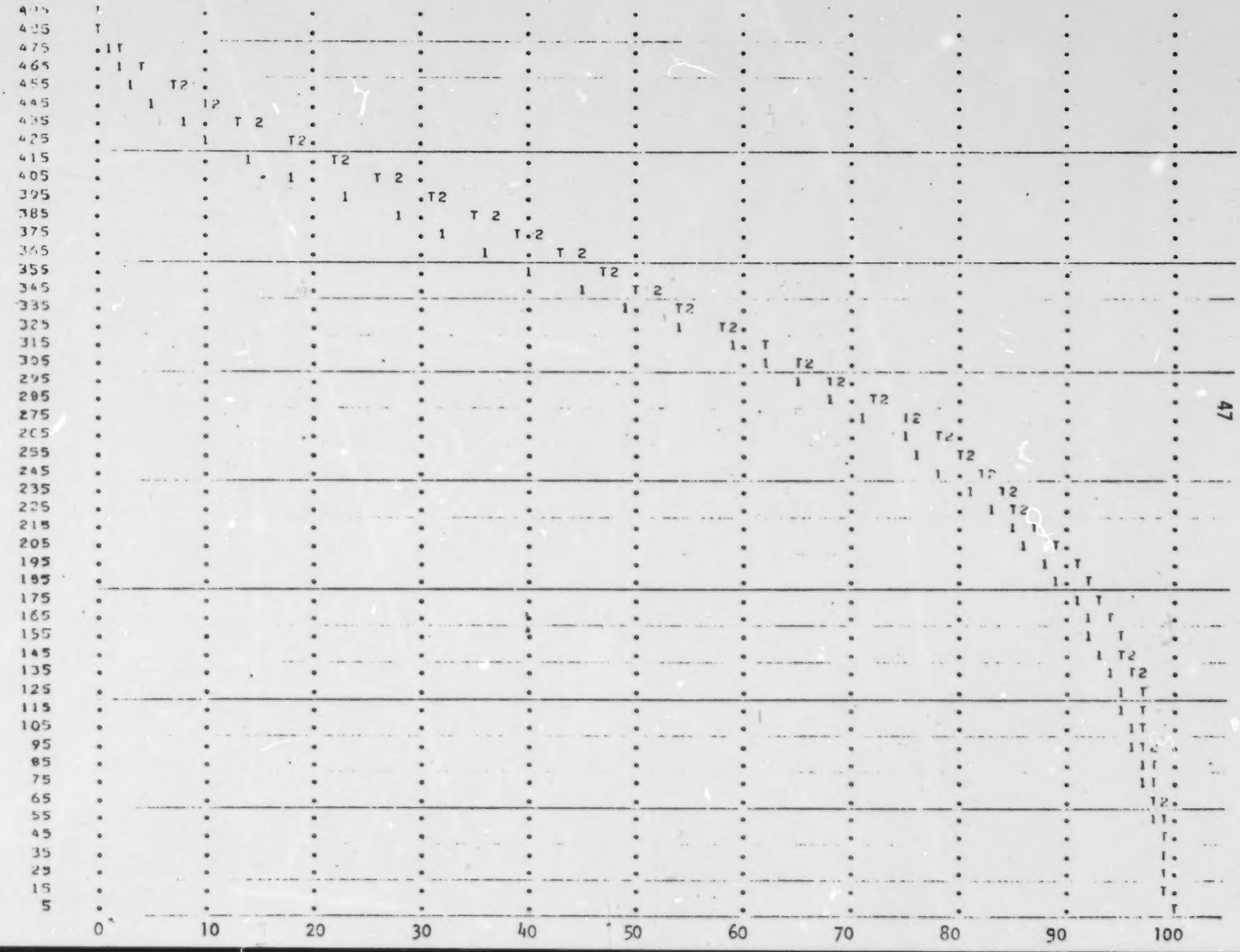
Of the six universities included in the study, only UF had Florida Twelfth Grade Test scores included in its data. Thus, the scope of this particular phase of the study was limited to UF.

Table 20 is an ogive curve which shows Florida Twelfth Grade Test scores obtained by cumulative percents of students who earned less than a 2.0 grade point average (distribution of 1's), students who obtained 2.0 or higher grade point averages (distribution of 2's), and both groups combined (distribution of t's). An example will serve to illustrate how this curve can be used.

Find the 50% vertical line at the bottom center of the curve. Move up the 50% line to the point where the distribution of 2's intersects this line. Now project horizontally back to the

TABLE 20.

OGIVE CURVE SHOWING FLORIDA TWELFTH GRADE SCORES FOR PERCENTAGES OF TRANSFER STUDENTS WHO ATTAINED GRADE POINT AVERAGES LESS THAN 2.00 (DISTRIBUTIONS OF 1's), 2.00 OR HIGHER (DISTRIBUTIONS OF 2's) AND BOTH GROUPS (DISTRIBUTIONS OF t's).



distribution of scores to see that 50 % of the students who had grade point averages of 2.0 or higher obtained 350 on the Florida Twelfth Grade Test score. Now continue down the 50% line to the point where the distribution of one's intersect. Again, projecting horizontally back to the distribution of Florida Twelfth Grade Test scores, observe that 50% of the students who earned less than a 2.0 average obtained 330 on the Florida Twelfth Grade Test.

With this procedure in mind, one can see that differences between the two groups of students on Florida Twelfth Grade scores are approximately the same throughout the entire distribution.

Clearly, there are distinct differences on Florida Twelfth Grade Test scores for the success and failing group, although these differences are extremely small.

Additional analyses were also performed in which the above two groups were compared within major. These methods included discriminant analysis and analysis of variance. However, none of these methods showed a statistically significant difference between Florida Twelfth Grade Test scores and students' grade point averages at the .05 level.

It should be recognized that the Florida Twelfth Grade Tests were administered, for the most part, during the first part of the students' senior year in high school. Subsequent to that time the students were exposed to additional education which was quite different from that encountered prior to taking the Florida Twelfth Grade Test. The possible new response to educational opportunity, plus the additional maturity obtained during the two to three years prior to attending the universities may have negated any predictive value of the Florida Twelfth Grade Test.

Academic Success of Students of Community College Origin Enrolled in Post-Baccalaureate Study

As indicated in Table 21, 697 students of community college origin were found to be pursuing post-baccalaureate studies in the university system. Of the 697, 66% were male and 34% were female. FAU had the highest percent (28) of the 239 SUS female students. UF had the highest percent (30) of the 458 SUS males. Also, UF had the highest percent (27) of the SUS's total 697. FSU had a surprisingly low 6%; FTU's 3% was not surprising, since FTU is a new institution with limited post-baccalaureate program offerings.

TABLE 21.
CLASSIFICATION OF POST-BACCALAUREATE STUDENTS OF COMMUNITY COLLEGE ORIGIN BY SEX AND SENIOR INSTITUTION

	UF		FSU		USF		FAU		FTU		UWF		SUS	
SEX	N	%SUS	N	%SUS	N	%SUS	N	%SUS	N	%SUS	N	%SUS	N	%TOTAL
FEMALE	50	21	14	6	58	24	67	28	10	4	40	17	239	34
MALE	136	30	31	7	78	17	93	20	14	3	106	23	458	66
UNCLASSIFIED	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	186	27	45	6	136	20	160	23	24	3	146	21	697	100

The grade point averages of post-baccalaureate students are indicated in Table 22. It can be seen that 24% of the students in the SUS had grade point averages less than 3.0, the average needed to be in academic good standing in graduate school. Out of 157 students of the SUS who had less than the 3.0 average, 80 of them were enrolled at FAU. These 80 students constitute 50% of FAU's post-baccalaureate students of community college origin.

Table 23 classifies post-baccalaureate students who are originally from community colleges by their original community college and senior institution. Tables 24 through 29 indicate the students of community college origin enrolled in the various majors for each of the universities.

TABLE 22.
CLASSIFICATION OF POST-BACCALAUREATE STUDENTS OF COMMUNITY COLLEGE ORIGIN BY GRADE-POINT AVERAGE AND SENIOR INSTITUTION

GRADE-POINT AVERAGE	U F		FSU		USF		FAU		FTU		UWF		SUS	
	N	%SUS	N	%SUS	N	%SUS	N	%SUS	N	%SUS	N	%SUS	N	%TOTAL
0.00-0.49	1	7	3	21	9	64	0	0	1	7	0	0	14	2
0.50-0.99	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1.00-1.49	1	100	0	0	0	0	0	0	0	0	0	0	1	0
1.50-1.99	2	40	0	0	1	20	1	20	1	20	0	0	5	1
2.00-2.49	3	8	1	3	2	5	23	62	1	3	7	19	37	5
2.50-2.99	19	17	4	4	7	6	56	51	4	4	20	18	110	16
3.00-3.49	57	23	13	5	51	20	54	21	9	4	66	26	250	36
3.50-4.00	103	37	24	9	66	24	26	9	8	3	53	19	280	40
TOTAL	186	26	45	6	136	20	160	23	24	3	146	21	697	100

It can be observed that UF had the largest proportions of such students enrolled in electrical engineering, education-secondary, and education-elementary. However, most of these students were enrolled in a broad spectrum of disciplines and subjects (these figures do not include the number of students of community college origin pursuing law or medical degrees).

FAU had the second largest number of students of community college origin enrolled in post-baccalaureate studies (160). A larger percentage of these students were studying curriculum and instruction and business administration than any other subject.

UWF enrolled 146 community college transfer students in post-baccalaureate studies. By far the greatest percent of

these students were pursuing masters degrees in business administration. This large number of students could possibly be a result of the proximity of military establishments and the institution's cooperation with these establishments.

Community college transfer students were also found to be enrolled in a wide variety of programs at USF, with the largest number enrolled in guidance. This figure is perhaps reflective of the state certification requirements or salary differentials in the discipline. Nevertheless, the data report that no one program attracts much larger percentages of these students than another.

This same trend of wide distribution of community college transfer students in post-baccalaureate studies was noted at FSU and FTU. The former had 45 students from community colleges in its programs with not more than three students in any one program. The latter, had 22 of these students pursuing studies in at least eight disciplines, the largest number in the College of Education.

In summary, the empirical data contained in this study indicate that students of Florida's public community college origin were pursuing a variety of studies at the post-baccalaureate level. Programs where a larger proportion of such students were enrolled constituted a rather small percentage of the total. As mentioned previously, UF had the largest number of students of community college origin doing post-baccalaureate work. The university's heritage and program offerings, in addition to its reputation, probably account for this finding. However, there are a number of other inferences drawn from these observations that are pertinent to this study. As other universities in the state system become better established and more widely recognized,

their enrollments may increase at a higher proportion than the UF or FSU. The rationale behind this is the relationship between the institution's location and its drawing power on its local population. This trend can be especially foreseen in those disciplines where post-baccalaureate work is directly remunerated by increases in salary, and/or postion, i.e., teaching, counseling, business administration.

Another implication suggested by these data is the possiblity that people will be returning to universities in the state system for retraining in other disciplines. Behind this implication could be such forces as job availability, transfiguration of population, vocation, and to some extent new social philosophies, i.e., women's rights movements.

In short then, these data presented in this segment of the study offer some insight into the area of post-baccalaureate studies pursued by community college transfer students in Florida's public senior institutions. Though not exhaustive in length, the findings may be helpful in program development, funding, and housing.

TABLE 23.
CLASSIFICATION OF POST-BACCALAUREATE STUDENTS OF COMMUNITY COLLEGE ORIGIN BY COMMUNITY COLLEGE OF ORIGIN AND SENIOR INSTITUTION

COMMUNITY COLLEGE	U F		FSU		USF		FAU		FTU		UWF		SUS	%TOTAL
	N	%SUS	N	%SUS	N	%SUS	N	%SUS	N	%SUS	N	%SUS		
BREVARD	10	31	5	16	7	22	4	13	6	19	0	0	32	5
BROWARD	10	15	4	6	2	3	51	76	0	0	0	0	67	10
CENTRAL FLORIDA	5	42	2	17	1	8	1	8	1	0	2	17	12	2
CHIPOLA	8	62	1	8	0	0	0	0	0	0	4	31	13	2
DAYTONA BEACH	11	46	0	0	1	4	3	13	8	33	1	4	24	3
EDISON	2	13	1	6	9	56	3	19	0	0	1	6	16	2
FLA J C AT JAX	1	11	2	22	2	22	1	11	0	0	3	33	9	1
FLORIDA KEYS	1	2	0	0	2	4	1	2	0	0	1	2	5	1
GULF COAST	2	15	0	0	1	8	0	0	0	0	10	77	13	2
HILLSBOROUGH	0	0	0	0	2	100	0	0	0	0	0	0	2	0
INDIAN RIVER	3	30	2	20	2	20	2	20	1	10	0	0	10	1
LAKE CITY	2	100	0	0	0	0	0	0	0	0	0	0	2	0
LAKE-SUMTER	4	80	0	0	1	20	0	0	0	0	0	0	5	1
MANATEE	9	36	3	12	9	36	3	12	0	0	1	4	25	4
MIAMI-DADE	64	46	11	8	13	9	47	34	0	0	4	3	139	20
NORTH FLORIDA	2	33	1	17	0	0	0	0	0	0	3	50	6	1
OKALOOSA-WALTON	3	10	0	0	0	0	0	0	1	3	27	87	31	4
PALM BEACH	8	14	3	5	3	5	43	74	0	0	1	2	58	8
PENSACOLA	6	7	2	2	0	0	0	0	0	0	81	91	89	13
POLK	8	36	1	5	11	50	0	0	1	5	1	5	22	3
SANTA FE	13	87	0	0	2	13	0	0	0	0	0	0	15	2
SEMINOLE	0	0	0	0	1	20	1	20	2	40	1	20	5	1
SOUTH FLORIDA	0	0	0	0	1	50	0	0	0	0	1	50	2	0
ST. JOHN'S RIVER	5	50	1	10	2	20	0	0	0	0	2	70	10	1
ST. PETERSBURG	9	11	3	4	64	80	0	0	3	4	1	1	80	11
TALLAHASSEE	0	0	3	100	0	0	0	0	0	0	0	0	3	0
VALENCIA	0	0	0	0	0	0	0	0	1	100	0	0	1	0
TOTAL	186	27	45	6	136	20	160	23	24	3	145	21	696	100

TABLE 24.
NUMBER OF POST-BACCALAUREATE STUDENTS OF COMMUNITY COLLEGE ORIGIN ENROLLED AT UNIVERSITY OF FLORIDA

MAJOR	N	%
ACCOUNTING	1	0
AEROSPACE ENGINEERING	2	1
AGRICULTURE ENGINEERING	4	2
AGRONOMY	2	1
ANIMAL SCIENCE	2	1
ANTHROPOLOGY	2	1
ARCHITECTURE	8	4
ARTS AND SCIENCES	5	3
BOTANY	1	0
BUILDING CONSTRUCTION	1	0
BUSINESS ADMINISTRATION-GENERAL	1	0
CIVIL ENGINEERING	4	2
COMMUNICATIONS	1	0
ECONOMICS	1	0
EDUCATION-COUNSELOR	3	2
EDUCATION-ELEMENTARY	10	5
EDUCATION-FOUNDATIONS	6	3
EDUCATION-GENERAL	2	1
EDUCATION-PERSONNEL SERVICES	1	0
EDUCATION-SECONDARY	13	7
EDUCATION-SPECIAL EDUCATION	5	3
EDUCATION-VOCATIONAL, TECHNICAL, ADULT	2	1
ELECTRICAL ENGINEERING	16	9
ENGINEERING SCIENCE AND MECHANICS	1	0
ENGLISH	3	2
ENTOMOLOGY	1	0
ENVIRONMENTAL ENGINEERING	3	2
FINANCE AND INSURANCE	4	2
FORESTRY	4	2
FRENCH	1	0
FRUIT CROPS	2	1
GEOGRAPHY	1	0
GEOLOGY	3	2
HEALTH AND HOSPITAL ADMINISTRATION	1	0
HISTORY	1	0
INDUSTRIAL AND SYSTEMS ENGINEERING	1	0
JOURNALISM	2	1
LATIN AMERICAN STUDIES	1	0
MANAGEMENT AND BUSINESS LAW	3	2
MATHEMATICS	2	1
MECHANICAL ENGINEERING	5	3
METALURGICAL-MATERIALS ENGINEERING	3	2
MICROBIOLOGY	2	1
NUCLEAR ENGINEERING SCIENCES	4	2
NURSING	2	1
ORNAMENTAL HORTICULTURE	1	0
PHARMACY	2	1

TABLE 24. continued

MAJOR	N	%
PHYSICAL HEALTH AND ATHLETICS	6	3
PLANT PATHOLOGY	2	1
POLITICAL SCIENCE	3	2
POULTRY SCIENCE	2	1
PSYCHOLOGY	7	4
REHABILITATION COUNSELING	3	2
SOCIOLOGY	3	2
SPANISH	3	2
SPEECH	4	2
STATISTICS	1	0
VETERINARY SCIENCE	2	1
ZOOLOGY	1	0
UNCLASSIFIED	3	2
TOTAL	186	100

TABLE 25.
NUMBER OF POST-BACCALAUREATE STUDENTS OF COMMUNITY COLLEGE ORIGIN ENROLLED AT UNIVERSITY OF WEST FLORIDA

MAJOR	N	%
AERONAUTICAL SYSTEMS	1	1
BIOLOGY MASTERS	9	6
COUNSELING	2	1
ECONOMICS	1	1
ECONOMICS MASTERS	1	1
EDUCATION LEADERSHIP DEV.	6	4
ELEMENTARY EDUCATION MASTERS	17	12
ENGLISH MASTERS	6	4
HISTORY	1	1
HISTORY MASTERS	13	9
M.A.T. ENGLISH	1	1
MANAGEMENT	1	1
MASTERS BUSINESS ADM-MGT	48	33
MBA-ECONOMICS	1	1
POLITICAL SCIENCE MASTERS	13	9
PSYCHOLOGY	2	1
PSYCHOLOGY MASTERS	22	15
SPEC STU HUMANITIES	1	1
TOTAL	146	100

TABLE 26.
NUMBER OF POST-BACCALAUREATE STUDENTS OF COMMUNITY COLLEGE ORIGIN ENROLLED AT UNIVERSITY OF SOUTH FLORIDA

MAJOR	N	%
ACCOUNTANCY	2	1
ART	2	1
ART EDUCATION	1	1
BOTANY	1	1
BUSINESS ADMINISTRATION	3	2
BUSINESS AND OFFICE EDUCATION	1	1
CHEMISTRY	3	2
CONTINUING EDUCATION	5	4
DISTRIBUTIVE EDUCATION	2	1
ECONOMICS SOC. BEH. SCI.	1	1
EDUCATION	2	1
ELEMENTARY EDUCATION	4	3
ENGINEERING FIVE-YEAR	7	5
ENGINEERING EDUCATION JC	1	1
ENGLISH	1	1
ENGLISH EDUCATION	1	1
FRENCH	1	1
GEOGRAPHY	1	1
GEOLOGY	1	1
GUIDANCE	10	7
HISTORY	2	1
HUMANITIES EDUCATION	2	1
LIBRARY-AUDIOVISUAL EDUCATION	2	1
LINGUISTICS	1	1
MANAGEMENT	3	2
MATHEMATICS	2	1
MENTAL RETARDATION EDUCATION	2	1
MUSIC	1	1
MUSIC EDUCATION	1	1
PHYSICAL EDUCATION	6	4
PHYSICS	1	1
POLITICAL SCIENCE	2	1
POTENTIALLY HANDICAPPED	4	3
PSYCHOLOGY	3	2
READING EDUCATION	5	4
SOCIAL SCIENCE EDUCATION	1	1
SOCIOLOGY	4	3
SPANISH	1	1
SPEECH	1	1
SPEECH PATHOLOGY EDUCATION	1	1
ZOOLOGY	3	2
UNCLASSIFIED	36	26
TOTAL	136	100

TABLE 28.
NUMBER OF POST-BACCALAUREATE STUDENTS OF COMMUNITY COLLEGE ORIGIN ENROLLED AT FLORIDA TECHNOLOGICAL UNIVERSITY.

MAJOR	N	%
COMMUNICATIONS	1	5
ELEMENTARY EDUCATION	2	9
MARKETING	1	5
BUSINESS ADMINISTRATION	3	14
EDUCATION	13	59
ENGINEERING	1	5
UNCLASSIFIED	1	5
TOTAL	22	100

TABLE 29.
NUMBER OF POST-BACCALAUREATE STUDENTS OF COMMUNITY COLLEGE ORIGIN ENROLLED AT FLORIDA ATLANTIC UNIVERSITY

MAJOR	N	%
ADMINISTRATION & SUPERVISION	3	2
ANTHROPOLOGY	5	3
BIOLOGICAL SCIENCES	10	6
BUSINESS ADMINISTRATION	20	13
CHEMISTRY	5	3
CURRICULUM & INSTRUCTION	44	28
ECONOMICS	1	1
ENGLISH	5	3
FOUNDATIONS OF EDUCATION	13	8
GEOGRAPHY	2	1
GUIDANCE	8	5
GUIDANCE & COUNSELING	1	1
HISTORY	12	8
LINGUISTICS	6	4
MATHEMATICS	2	1
OCEAN ENGINEERING	1	1
PHYSICS	3	2
POLITICAL SCIENCE	2	1
PSYCHOLOGY	8	5
PUBLIC ADMINISTRATION	8	5
SOCIOLOGY	1	1
TOTAL	160	100

Conclusions and Recommendations

It may be concluded from the review of related literature that community college students, as compared to their counterparts at four-year institutions, are typified by the following general characteristics: lower socio-economic status, a more practical orientation, lower confidence levels, lower predictive test scores, a higher percentage of working students, a higher average age, and a larger percentage maintaining family residence. In addition, the greatest percentage of community college students were enrolled in transfer-type programs.

The IRC study adds to this base of knowledge in several instances. The previously noted practical orientation of community college students was substantiated as the students in this study exhibited a decided preference for applied fields such as education, business, and engineering. Furthermore, almost 30% of the UF transfer students failed to score 300 (minimum score for freshman or sophomore admission to state universities) on the Florida Twelfth Grade Test. Obviously, the lower division students at state universities scored higher on this test. It should be recognized, though, that this particular test had little predictive validity for community college transfer students.

While it seems obvious in light of the community service function of the community college that a large number of its students are adults, in this study the trend surprisingly carries over to the students who transfered to senior institutions. Fully 69% of these transfer students were at least 21 years of age. While no figures were available

for native students, reason would suggest that this figure might not be as large. Further, it would seem a logical inference that this age factor would follow across to indicate a high incidence of working students among transfer students.

The finding of the strong relationship between the locations of senior institutions and the counties of origin of the transfer students collaborates previous research findings that high percentages of community college students are from lower socio-economic classes and a lack of mobility has traditionally been associated with a lower socio-economic position.

Previous research (annotated in our review of related literature) on the nation's college and university population show 38% women and 6% non-white. The percentage of women was found to be very close to the 38 (36). However, the percentage of non-white was less than the 6%.

A fair summation of previous research annotated here would seem to be that community college transfer students perform somewhat poorer than native students in upper division work on the two criteria of grade point average and number of terms required for graduation. When transfer and native students are matched by predictive test scores, these differences tended to be negligible, but as a group the performance of transfer students did not equal that of native students. This is not to imply that the community college students are not successful, as most do graduate, but merely that they do less well than the native student population on the two criteria above. While no comparison data on native students were available, the IRC study clearly confirms the hypothesis that these community college transfers enjoy a high degree of success based upon absolute grading standards.

Previous literature relating to community college transfer student performance across programs or in specific programs is sparse as it is for their post-baccalaureate achievement. Still, tentative indications are that transfers do best in education and agriculture, and poorest in engineering, business, and liberal arts. This study is generally supportive of these tendencies, although levels of achievement in liberal arts majors tended more toward the median.

This IRC research also revealed that approximately 3% of the community college transfer students enrolled were in post-baccalaureate study. The programs chosen were diverse, but tendencies were toward education, engineering, and business.

Fully 76% of those enrolled in graduate study were achieving satisfactory grade point averages. Additionally, it may be noted that the tendency is for graduate students to raise their grade point averages over time, and this 76% figure may rise and an even higher percentage actually graduate.

One further statistic that was not found reported in the literature and appears unique to this study is that 40% of the community college transfers came to the senior institutions with less than junior class standing, and 20% were still classified as freshmen.

Further research is needed to clarify what factors are contributing to the large percentage of students transfering from junior to senior institutions during their freshman and sophomore years.

The generally fine academic record of community junior college transfer students at the six senior institutions studied indicates high compatibility between the transfer programs and the senior institutions. However, the difficulties encountered by some students in a

number of programs point to a need for further inquiry into the reasons for this less-than-satisfactory performance. A first step might be a comparison with the performance of native students in the same majors. Should the scores of community junior college transfers be significantly lower than those of native students, a second step would involve careful investigation of articulation and matriculation methods at the community college level.

Several areas of study were noted to have students with academic difficulty in all universities. These areas were business, science, and the professions. The professions have long prided themselves on their rigorous programs and will no doubt continue to do so. Regarding the business area, it might be hypothesized that the more practical posture of community college business preparation puts transfer students at a disadvantage when faced with the more theoretical orientation of business programs in senior institutions. Facilities in the sciences are typically more complete at the university level than in community colleges. Often the strongest science students tend to matriculate directly to the senior institutions, thus leaving the community colleges at an initial disadvantage in terms of subsequent upper division performance. Even if the foregoing were proven fact rather than hypotheses, immediate change would be difficult, and students planning to enter these three areas should receive special guidance and be acutely aware of the intellectual demands and lower success ratios.

It should be noted that low scores in a given major and at a given institution do not necessarily indicate matriculation problems, as grading systems vary between institutions and between departments. It seems improbable that elementary education majors, for instance, are

significantly more intellectually capable than chemistry students, yet the mean grade point averages for the former typically exceeds the latter by a wide margin. There are, of course, many variables that could account for the disparate grades across departments. Yet these are often elusive, and the clear fact remains that grade averages are perenially higher in some departments and lower in others. Similarly, inter-institutional comparisons of transfer grade averages in a given major should assist in determining whether difficulty was a function of a given instructional department or of some lack of preparation at the community college level.

Areas of special success for transfers seem to be the various programs in education, modern languages, and the arts. Possibly in these areas there is less disparity between the facilities and student composition of the community colleges and those of the senior institutions. It requires fewer facilities to properly educate a philosophy major, for example, than a nuclear engineer.

As previously mentioned, the overall performance of community junior college transfers at the six institutions studied was satisfactory or above in most majors. Subsequent investigation may uncover that even in the majors with low transfer success there is little the community college can do to remedy the situation. This is to say, low success may be inherent in the majors or in the design of the senior institution. Even so, it cannot be overemphasized that the community junior colleges will best serve their transfer students through constant coordination of programs with the senior institutions, and timely, well-informed guidance procedures.

APPENDIX

Annotated Review of Literature

Birnbaum, Robert. "Why Community College Transfer Students Succeed in 4-Year Colleges--The Filter Hypothesis," The Journal of Educational Research, Volume 63, Number 6, February, 1970, pp.247-49.

This study examines the hypothesis that the community college transfer program acts as a "filter" through which potentially successful baccalaureate candidates with relatively poor high school achievement can pass, rather than as a program which strengthens marginal students through counseling and remediation. If this hypothesis is correct, students at the community college should earn the same grades they would have expected to earn had they orginally entered a 4-year institution. Admissions scores and college grades after 3 years were compared for two groups of students (N=188 each) entering a senior college or a community college of the City University of New York. Analysis of covariance indicated that both groups shared a common regression line, and that differences in the college achievement of both groups were due to differences in their high school admissions scores, thus supporting the hypothesis. The findings support the concept of a universal standard of grading in higher education, and indicate that the community college may serve the function of screening marginal students for upper division work.

Bossen, Doris A., and Burnett, Collins W. "What Happens to the Withdrawal Student", Junior College Journal, 40: 30-2+, June, 1970.

Follow-up study of fifty Foothills (Cal.) Junior College students (25 withdrawals; 25 persisters). Analysis of responses found the reasons for withdrawal to be personal, social, and academic with a preponderance in the personal area. Factors correlated with withdrawal were marriage, lower socioeconomic status, negative perception of faculty, late planning for college, and clear vocational goals. Another significant finding was that almost half of the original withdrawals had returned to college.

California State Coordinating Council for Higher Education, Sacramento, "Transfer of Junior College Engineering Students to Engineering Programs in Senior Institutions in California." Report No.-CCHE-69-9, July, 1969.

A questionnaire was sent to transfer students who had or were enrolled in engineering programs in California's upper division universities to identify possible problems. The problems which were identified included: (1) meeting requirements at specific four-year institutions with strong occupational emphasis; (2) determining course equivalents; (3) providing for differences in school calendars; and (4) fulfilling certain lower division requirements.

Cooper, Leland R. "The Difficulty of Identifying the Real Transfer Student", Junior College Journal, 38: 38+, December, 1967.

Study of 584 students in transfer programs at two Florida junior colleges. Results showed that by two years after graduation, 37.5 percent had not transferred to a 4-year institution. Statistical analysis revealed no significant differences between the continuing and noncontinuing students on 12 factors commonly useful in predicting academic success or persistance. The need for research to identify the "intangible" predictors of continuance was indicated.

Cope, Robert G. "Sex-Related Factors and Attrition Among College Women", Journal of the National Association of Women Deans and Counselors, 33: 118-24, Spring, 1970.

Two years after their enrollment, data gathered upon entrance from a random sample of 747 continuing students (349 men, 396 women) at the University of Massachusetts were contrasted with the same data of 586 students (271 men, 315 women) who had dropped out. The comparison revealed social and psychological factors that were related to female attrition but not male. Females who appeared to be less cultured, less attractive, and less verbally skilled were inclined to be less successful and to eventually withdraw.

Cross, Patricia K. "Higher Education's Newest Student." Junior College Journal. Vol. 39, September, 1969 No.1, pp. 38-42.

The author depicts the junior college student as "higher education's newest student", typically coming from lower socioeconomic status levels.

The junior college student can be any age. Their interests are more practical in nature than their peers in a four-year college. They tend to major in more of the applied fields (i.e. business administration, engineering, education), and carry this major interest to a four-year college with them.

Studies done in relation to the characteristics discussed by the author are described and references given.

Part of the emphasis is on realizing and adapting to the needs

of this newest student. They are not looking for excellence in the traditional sense, and generally have lower concepts of their own academic abilities. This is a fair article for gaining a basic insight into the "junior college student".

Cross, Patricia K. The Junior College Student: A Research Description. Princeton: Educational Testing Service, 1968. A pamphlet which describes the following characteristics of the junior college student.

1. Academic--There is an extremely high probability that many carefully designed research studies will find large and diverse samples of junior college students achieving lower scores on academic ability tests than comparably selected samples of four-year college and university students.

2. Socio-economic background--Research findings demonstrate that parents of junior college students tend to have lower socio-economic status than parents of students entering four-year colleges and universities. This evidence indicates that the junior college is playing a highly significant role in the democratization of higher education.

3. Finances--Past research indicates that assessing the relationship between college attendance and dollars-and-cents cost is an extremely complex task. While students attending junior colleges say that cost and location are prime factors in their selection of a college, few confess to major financial worries, and the cost factor alone does not seem to prevent students from seeking higher education.

4. Goals and aspiration--Junior college students are likely to be attracted to a college for practical reasons -- low cost, nearness to home, and because it offers the job training that will lead to a higher income. They do not seek an intellectual atmosphere, nor do they find it. They tend to see their colleges as placing a relatively low emphasis upon scholarship and a high emphasis upon practicality.

5. Interests and personality characteristics--Junior college students have a more practical orientation to college and to life than do their more intellectually disposed peers of four-year colleges. They are interested in applied college curricula, and they expect their future satisfactions to come from business and financial success.

6. Special abilities--Junior college students do not feel as well prepared for college as four-year students. As a group, they are less confident of their academic abilities; and far fewer junior college than four-year college students feel that their high school teachers would rate them as good or excellent students.

The only areas in which junior college students express confidence in equal or greater proportions than the four-year students are in nonacademic abilities such as manual skills, sports, cooking, sewing, and the like.

Daniel, Kathryn Barchard. "A Study of College Dropouts with Respect to Academic and Personality Variables", The Journal of Educational Research, Volume 60, Number 5, pp. 230-235, January, 1967.

This is a study of dropouts with respect to verbal scores of School and College Ability Tests and personality scores of the Gordon Personal Profile and the Gordon Personal Inventory.

The sample consisted of 1,263 college freshmen. The statistical procedure used was the t-test.

High academic aptitude students differed from low academic aptitude students beyond .001 level of confidence on verbal scores of the SCAT. Statistically significant evidence was found between dropouts and students who remained in college on several personality variables--trustful and tolerant, perseverant, inquiring, energetic, vigorous, calm and collected, and cautious.

High academic aptitude students are more likely to remain in college than low academic aptitude students. Low academic aptitude students are more homogeneous with respect to personality variables than high academic aptitude students.

Demos, George D. " Analysis of College Dropouts--Some Manifest and Covert Reasons", Personnel and Guidance Journal, 46: 681-684, March, 1968.

The importance of identifying the real reasons why students withdraw from colleges and universities is substantiated by citing studies that have been underway at California State College at Long Beach. One very important aspect of these studies indicates that the reasons given by the withdrawing students are not, many times, the reasons seen by trained counselors.

Grover, Arland L. " A Comparative Study of Wyoming Community College Students Who Transferred to the University of Wyoming", College and University, 42: 204-8, Winter, 1967.

In 1962 a group of 100 community college transfers to the University of Wyoming were compared to 100 native juniors for the purpose of providing information on the academic performance of the transfers. Groups were matched by Ohio Psychological Exam scores, sex, and predicted grade averages. The fact that 70 percent of the transfers graduated was held to indicate that community college students do achieve at the university. However, the mean grade average for native students over the junior and senior years was higher than that of transfers.

Hackman, J. Richard, and Dysinger, Wendell S. "Commitment to College as a Factor in Student Attrition", Sociology of Education, 43: 311-324, Summer, 1970.

This study examines the possibility that the commitment of a student (and of his parents) to obtaining a college education may be an important factor in determining whether or not he withdraws from college during his freshman year.

Data were collected from 1407 students enrolling in three midwestern liberal arts colleges and from the parents of 1331 of these

students. Four categories of students were defined: persisters, transfers, voluntary withdrawals, and academic dismissals.

Results show that it is possible to differentiate meaningfully among the four categories of students in terms of the level of commitment to college they express before they actually enroll in school. Furthermore, the data suggest that parental attitudes and values about higher education may be at least as important in making this differentiation as are the data provided by students themselves.

Hannah, William. "Personality Differentials Between Lower Division Dropouts and Stay-ins," Journal of College Student Personnel, 12: 16-19, January 1961.

Omnibus Personality Inventory and aptitude scores were obtained for 2,874 students at 13 private colleges. After two years, 1,212 of this sample were dropouts. It was hypothesized that no difference in either O.P.I. or aptitude scores would be found for leavers or stayers. Significant differences were found on several scales of the O.P.I. and on the aptitude measures. Persisting students tended to be characterized by conformity and higher aptitude scores.

Hartman, E.L. and R.B. Caple, "Academic Achievement of Junior College Transfer Students and Native University Students." Journal of College and Student Personnel, 10: 378-81, 1969.

Studies by Hill (1965), Knoell (1965), Young (1964), and Hill (1967), showed that grade point averages of junior college transfer students drop significantly the semester after transfer and that transfer students from other four-year universities perform better than junior college transfers.

Martorana and Williams (1954) could demonstrate no difference between native and junior college transfer students when matched on the basis of high school rank and test scores.

Cooley and Becker (1966) stated that, in terms of ability, the junior college transfer more closely parallels the noncollege individual, but looks like the senior college student in terms of socio-economic background.

This test compares the performance of native and junior college transfer students who completed the junior year during 1964-65, 1965-66, and 1966-67 in the Colleges of Education, Arts and Science, and the School of Business and Public Administration at the University of Missouri.

The students were matched according to size of high school graduating class, high school rank, sex, age at college entrance, and college enrolled in during the junior year. In addition a comparison was made between rural transfers, urban transfers, and transfers from private junior colleges with native students.

Results showed a significant difference between grade point averages in the first and second semesters of the junior year in the College of Education; a significant difference in GPA's in the first semester only for the College of Arts and Science; and no significant differences for the School of Business and Public Administration. There was a significant difference in the GPA's of native and transfer students

when all three college samples were considered together.

Rural students performed as well as their matched counterparts. Metropolitan students earned significantly lower grades during the first semester after transfer, while transfers from private junior colleges demonstrated significantly lower grades through both semesters of the junior year.

No explanation was offered for any of the patterns demonstrated by the study.

Illinois Council on Articulation, North Central Association Quarterly, 46: 295-306, Fall, 1971, "Transfer Students in Illinois: Where Do They Go and How Do They Succeed?"

During the academic year 1967-68 almost 30,000 transfer students at 90 percent of Illinois institutions of higher education were identified and studied for articulation purposes. The following conclusions are based on data gathered:

1. Student Mobility
   a. The student population is very mobile.
   b. There is a loss of transfer students by private institutions.
   c. As many transfer students are received by junior colleges as by senior colleges.
   d. A large segment of the transfers are out-of-state.
2. Student Characteristics
   a. One-half of the transfers are choosing liberal arts, education and business as majors.
   b. One-half of the transfers from senior institutions were in academic difficulties.
   c. One of three transfers was in the upper 20 percent of his high school class.
3. Student Success
   a. One of three transfers left the institution of transfer within one year.
   b. Transfer success was rated as average.
   c. There is a need for measures of success other than graduation.
   d. The transfer student is a potent factor in any institution of higher education.

King, Caroline. "The Junior College vs. U.C. (University College) Students." Unpublished research done by the author and the undergraduate education office, University of Florida.

The research in which this student was involved was actually a comparison study of students enrolled as undergraduates in education; University College students' Twelfth Grade Test scores and junior college transfers' scores.

The senior placement scores show wide separation, but can be adequately interpreted. Out of 118 scores from University College students, only 47 were below 400 points, and the average score was 412, a few points below last year, but very good. The fact that no one with a score

below 300 is admitted to the university freshman class accounts for some of this phenomena, and the tough competition accounts for the higher scores.

Out of 301 junior college transfers, however, only 75 scored above 400, the highest score being almost a perfect one-492. But, the low scores are unbelievable: 28, 97, 67, 99, 95, and 30 students scored below 312. Despite this, only the students below 150 really have problems in education.

Klein, Ruth and Snyder, Fred. "Non-Academic Characteristics and Academic Achievement," Journal of College Student Personnel, 10 (5), September, 1969, pp. 328-31.

This study looked at the relationship between 12 selected non-academic characteristics of academically capable junior college students and their academic performance. Significant relationships were found between the level of academic achievement and sex, family income level, and age. Female students and students from low income families were over-represented in the achiever student group while male students and higher income families were over-represented in the underachiever group.

Knoell, Dorothy. "Significant Current Research of Community Junior College Students," Community Colleges in the South: Progress and Prospects. A report of the Southern States Work Conference, 1962. pp. 84-97.

General Characteristics: age range: 16-70, 43 percent were age 19 or less; in Florida, 57 percent were less than 19 years. sex: 62 men to 38 women. marital status: 23 percent married.

Socio-economic background: most students come from lower-middle income families and need financial assistance. Many work, have little time for extra curricular activities. Many represent the highest level of education achieved in his family.

Academic Ability: most have lower scores on college placement tests. However, transfer students, some of whom suffer "transfer trauma", usually recover and achieve at average or above level.

Aspirations: reflected as unrealistic in the number of those who say they plan to transfer and the number of those who actually do.

Self-concepts: generally have good self-concepts, social confidence, cheerfulness.

Knoell, D.M. "Who Goes to College in the Cities?" Junior College Journal, September, 1969, pp. 23-27.

Those who are interested in working for an urban junior college will find this article particularly interesting. Rather than attempting to describe what a typical junior college student is, the author has limited herself to the college in the city.

A quick survey of some of Knoell's findings show us that the individual high school and even the neighborhood are determining factors in the high school graduates' decision to attend college. Race

can be a subtle deterrent by means of housing and employment. The sex of the students appear to indicate more white males than females will attend, but an equal number of black males and females will attend.

The article continues by predicting the average student's socio-economic background, test scores, likely subject-areas or majors, probability of graduation, and possibility of local employment after graduation.

The author concludes by suggesting further investigation in the differences among high schools in college-going rates and programs where the college faculty holds high school interviews and recruiting programs. The author advises what type of testing can be most beneficial to the urban junior college of today. Knoell never really tries to typify the urban junior college student. The junior college student varies from the widest possible range. Statistics and carefully selected interviews do go a long way, however, in helping the location, construction, philosophy, and curriculum decisions of the urban junior college.

Loughlin, Richard L. "A Friendly Grasp of the Hand to Junior College Transferees," School and Society, 95: 352, October, 1967.

As a part of his comments on junior college-university articulation, the author includes these findings from an unpublished study at City University of New York: (1) junior college transfers take longer to complete degrees than do native students, (2) junior college transfers are as successful as native students in eventually obtaining degrees, and (3) junior college transfers are as successful as native students in all programs except engineering.

Lunneborg, Patricia W., and Lunnebord, Clifford E. "Improving Prediction of Academic Achievement for Transfer Students", Personnel and Guidance Journal, 45: 993-995, June, 1967.

The most widely used index for admission of transfer students, grade-point average at prior colleges, was found to be minimally correlated with subsequent grades. Better predictors of transfer GPA were high school GPA and scores on tests of English usage and mechanical reasoning. While based on 260 transfers at one university, these results suggest that a combination of other academic and intellectual variables should replace the traditional transfer predictor-a C average at some other school.

Mann, Bill. "Student Achievement: Junior College Transfers vs. University Transfers to the University of Missouri-Columbia," A topical paper. University of Missouri, 1969.

The University of Missouri-Columbia studied the first semester GPA's of transfer students from junior colleges and four-year institutions. Matching was based on total School and College Abilities Test (SCAT) scores, academic division entered, and sex. Results were: The first semester post-transfer mean GPA's were compared using a t-test

of significance. Differences were not found at the 0.05 level. Based on this finding it appears questionable that junior college transfers suffer more from "transfer shock" than from institutional grading practices.

Medsker, Leland L. The Junior College: Progress and Prospect. New York: McGraw-Hill, 1960.

Medsker's nation-wide study of the performance of junior college transfers as compared to native university students showed negligible differences between the groups. However, the retention rate for transfer students was markedly lower. (p.131)

At the University of Illinois, the results based on grade-point averages were listed by major and were as follows: (1) Commerce - natives superior, (2) Education - transfers superior, (3) Engineering - natives superior, (4) Liberal Arts - natives superior, (5) Agriculture - transfers superior. (p.126)

Medsker, Leland L. "The Two-Year College", Teachers College Record, LXIII, No. I, pp. 40-52, October, 1961.

This article by Medsker outlines some of the basic functions and goals of the community junior college, and points out that the central issue in the junior college is whether or not the institution can resolve differences between theory and practice such that the institution can adequately serve both the transfer and non-transfer student. He goes on to show some of the differences in backgrounds, financial resources, and basic abilities of students that are all dimensions of the same problem. Several of the major issues concerning the community junior college have appeared in Medsker's articles and in his book entitled The Junior College: Progress and Prospect (McGraw-Hill Book Co., N.Y., 1960). Some of these issues and problems include:

1. The open door policy - basically, who should or shall attend the community junior college?
2. What is a junior college's community function?
3. General education offerings (or lack of them)?
4. Spoon feeding, coddling vs. sink or swim?
5. Articulation with senior institutions, including counseling.
6. Clearer definition of the goals and functions of the junior college.

Melnick, Murry, et.al. The Academic Performance of Students Who Transfer After Two Years. Hofstra University, N.Y. Center for the Study of Higher Education, September, 1970.

This report presents data on the 4th year performance of transfers from 2 and 4-year colleges, and a sample of Hofstra natives. The relationship was examined between performance (GPA) and high school decile, SAT verbal scores, sex, and cummulative 2-year GPA's. The third and fourth years' performance of these two groups were compared. Some

of the major findings were: The performance of transfers from 2-year colleges in their third and fourth years was lower than native students and transfers from 4-year colleges. A higher percentage of the 4-year transfers and native students graduated than did the 2-year college student. The 2-year college transfer's GPA dropped during his first semester of the third year, but rose during his fourth year.

Morrisey, Robert J. "Attrition in Probationary Freshmen", Journal of College Student Personnel, 12: 279-85, July 1971.

In order to compare, on six biographical and attritional characteristics, a group of students who dropped out of college with a group who did not, a selected group of University of Missouri-Kansas City freshmen was studied. The persister group consisted of 150 students who re-enrolled the following year (1966); the drop-out group consisted of 181 who did not re-enroll. It was proposed that the six nonintellectual characteristics had an effect on attrition greater than the effect of ability. Chi-square analysis showed nonintellectual variables to have less effect on persistence than intellectual factors.

Nickens, John M. "The Effect of Attendance at Florida Junior Colleges on Final Performance of Baccalaureate Degree Candidates in Selected Majors at the Florida State University", College and University, 45: 281-8, Spring 1970.

Florida State University students who graduated in 1968 (excluding non-junior college transfers) were samples for this study. Florida Twelfth Grade Test Scores and senior GPA were collected and the sample sorted by major. An analysis of covariance showed the means of FTGT scores significantly higher than the .05 level for native students for 10 of 18 majors, and differences in GPA were found for 3 majors. However, after adjusting for differences in ability, it was concluded that the factor of junior college attendance did not significantly alter performance in any of the 18 majors studied.

Nickens, John. "The Relationship of Selected Variables to Performance of Junior College Transfer Students at Florida State University", The Journal of Experimental Education, Volume 38, Number 3, Spring 1970.

The Florida State University grade point averages (GPA's) of a sample of 398 junior college transfers were related to the following variables: junior college GPA, number of technical courses taken at the junior college, Florida Twelfth-Grade Test (FTGT) aptitude score, FTGT mathematics score, FTGT total score, load at Florida State University, lower-division courses taken, and deficiencies in Florida State University general education requirements. The results indicated that of this set of variables, only the junior college GPA and FTGT scores had practical magnitude in a general linear prediction equation.

"Non-Academic Characteristics and Academic Achievement," pp. 328-31, and "Personality Differences Among Community College Students," pp. 306-09, both in the Journal of College Student Personnel. Vol. 10, No. 5, Sept., 1969.

Both of these articles focus on the junior college student, and from the research done, investigate student attitudes, personality, the underachiever, and family background.

Ogilvie, William. Final Reports of the Articulation Study Committee to the Illinois Board of Higher Education. 1 June 1971.

This study examines the articulation problems faced by transfers from junior colleges to 4-year colleges. The study recommends the establishment of a representative body to report to the Board of Higher Education suggestions for alleviating the "transfer shock" problems.

Pandey, R.E. "Personality Characteristics of Successful, Dropout, and Probationary Black and White University Students," Journal of Counseling Psychology. 1972, Vol. 19, No. 5, 382-386.

This study compared performance on the MMPI of 350 college freshmen constituting three academic statuses; good, dropout, and probationary. Analyses of variance uncovered significant effects for Hs, Ma, Mf, Si, L and F scales. The mean T scores indicated no serious pattern of abnormality characterizing any of the groups studied. Only a few differences are significant between good students and dropouts on any of the MMPI scales regardless of sex or race. Thus, doubts are cast on the conclusion that college dropouts have more personality disturbances than those who succeed in school.

Reynolds, J.W., The Junior College. New York: Center for Applied Research in Education, Inc., 1965. (103 p.).

There are marked differences in the diversity of junior colleges and of the students who attend them just as there are differences in four-year colleges and the students who attend them. Many myths exist about the junior college students, but there is a dearth of authoritative information about them.

Some of the myths are as follows: The junior college students are inferior to students in four-year institutions, although countless studies have destroyed this. The only justification for junior colleges is to provide vocational education. The junior college student is typical of those for whom further education is a waste of time. Many other myths pertaining to the junior college student all have one thing in common with the foregoing: They are groundless.

The ability range of junior college students is as wide as their aptitude, motivation, and orientation. Junior college students with the highest ability compare favorably with their counterpart in four-year colleges. However, the less able junior college student is substantially below his counterpart. Over 40 percent of junior college students work part or full-time attending classes in the morning or evening. Most junior college students, 95 percent, live at home and

are classified, based on the type of curriculum they follow, as transfer, terminal, or adult students.

The motivation of junior college students is as varied as the highly heterogeneous group comprising them. Many of the students have only a vague notion as to their eventual academic or vocational goals. The motivating interest of terminal students is usually vocational, and they are often resentful of the general education subjects they are required to take. The transfer students, or those enrolled in the academic curriculum, are preparing for the third year of the undergraduate program although many of them never reach the third year because they drop out after, or even before, graduation. Adult students, or evening students as they are sometimes referred to, constitute the most formally structured aspect of community service in the junior college. Many adult students are full-time students, some are adults who attend all kinds of classes for an assortment of reasons, and others are just lonely individuals who find evening schools a satisfying medium for making social contacts.

The list of motivating factors is endless, but the junior college which allows the student to satisfy his needs is performing a real community service.

Rossmann, Jack E., and Kirk, Barbara A. "Factors Related to Persistence and Withdrawal Among University Students," Journal of Counseling Psychology, 1970, Vol. 17, No. 1, 56-62.

Students who enrolled as freshmen in the College of Letters and Science at the University of California, Berkeley, in the fall of 1966, were categorized as persisters (n=1,-52), voluntary withdrawals (n=214), or failures (n=258) based upon their first year cumulative gradepoint average and whether or not they returned to the Berkeley campus in the fall of 1967. School and College Ability Tests (SCAT), the Omnibus Personality Inventory, and questionnaire data collected during the 1966 registration week indicated that, as compared to the persisting students, the voluntary withdrawals (both men and women) had higher verbal ability and were more intellectually oriented. The voluntary withdrawals also had significantly higher SCAT scores than the failures and the female withdrawals were less practically oriented than the female failures.

Starr, Ann; Betz, Ellen L.; and Menne, John. "Differences in College Student Satisfaction: Academic Dropouts, Nonacademic Dropouts, and Nondropouts," Journal of Counseling Psychology, 1972, Vol. 19, No. 4, 318-322.

This study investigated the premise that the theory of work adjustment can be applied to investigations of college student adjustment. A sample of 1,968 university students was administered a measure of college student satisfaction. The following year, dropouts in the sample were identified and divided into two groups, those having inadequate grades and those with passing grades. Scores of these groups and a random sample of nondropouts were compared. Satisfaction scores of nondropouts were highest, followed by dropouts with passing grades and, last, dropouts with inadequate grades.

Stordahl, Kalmer, "Influences on Voluntary Withdrawal from College," College and University, 45: 163-71, Winter 1970.

In 1966, questionnaires were sent out to all voluntarily withdrawing students at Northern Michigan University. Students were asked to rate factors influencing their decision to withdraw. A 66 percent return (327 students) was realized. About 60 percent had transferred and 40 percent of the rest planned to continue their education at a later time, with men more likely than women to transfer. The desire to move closer to home was the single most important factor and the other reasons fell into three categories: (1) nonacademic, (2) low motivation, and (3) general dissatisfaction.

Suddarth, Betty M. "A Multivariate Investigation of the Academic Achievement of Transfer and Native Students," Journal of College Student Personnel, 12: 133-7, March, 1971.

A stratified random sample of 192 Purdue University transfer students enrolled during 1967 was selected and matched with native students by sex and class designation. Data on six academic achievement variables were collected on each student and a three-factor factorial multivariate analysis performed. Hypotheses tested were that there were no differences in these six achievement variables between transfers and native students, between men and women, and between classes. Native students were higher on only one index, but there was considerable disparity within the transfer group on all indices. Little difference existed among classes. Women obtained consistently higher scores than men.

Thorton, James W., Jr., The Community Junior College, 2nd ed., New York: John Wiley, 1966.

James Thorton, in the chapter in The Community Junior College on student characteristics, pulls together a great deal of research in this area to give a solid view of the characteristics which make the junior college student unique.

Level of ability is one area that has been greatly studied. Thornton indicates with the aid of graphs and surveys that the academic ability of the junior college student is lower on tests than that of the freshman group attending a four-year university. On the Senior Placement tests, the junior college student who transferred to a four-year institution scored 100 points lower than the native university students. The junior college serves students from the total ability range. The largest percentage attending the junior college fall into a lower ability range.

Socio-economically, the junior college student comes from a lower level. While the prestige of attending a four-year institution is greater in the higher socio-economic backgrounds, the family of the junior college student is less oriented toward higher education.

This characteristic suggests another. The junior college student is more likely to have a job, especially if he plans to transfer.

In the junior college there is an average of three men to two women. The junior college serves people who are age sixteen to over seventy. Sixteen percent are over thirty and 50% are under nineteen. One quarter are married.

Thorton also notes that the junior college students tend to have unrealistic objectives. Seventy-seven percent plan to complete four years of college while only one-third will actually start a four-year degree. Forty-eight percent complete the A.A. or A.S. degree. Of every 100 students starting the junior college, 65 will return.

These characteristics have certain implications for any teaching program and it would be wise for anyone planning on teaching in a junior college to become familiar with these characteristics.

U.C.L.A., "Follow-ups of the Junior College Transfer Student," Junior College Research Review. February, 1967.

The following were concluded from a survey of twenty-four studies included in this review:

1. Students who transfer from two to four-year institutions may typically experience a lower grade point average during their first semester.
2. In most cases, the transfer student's marks bounce back after this initial period.
3. Grade point averages of transfer students improve exponentially with the number of terms they are in upper division.
4. The transfer student is less likely to graduate than the native student and if he does, it takes him longer.

Voyles, L. Vernon. "Academic Data on Native and Florida Junior College Transfer Students Entering the University of Florida Upper Division, Fall 1968," Gainesville, Florida: Inter-Institutional Research Council, 1971.

The Registrar's Office compared the academic performance of upper division junior college transfer students to that of native students and found the native students performing at a higher academic level. Academic ability rather than other variables appeared to account for their performance, as high school placement test scores were much higher for the native students.

Williams, Vernon. "The College Dropout: Qualities of His Environment," Personnel and Guidance Journal, 45: 878-82, May, 1967.

Results of research on college dropouts paint both a negative and a confusing picture of this group. The argument presented in this paper is that consideration of the college student's environment can help to resolve some of the apparent contradictions among the various characteristics of the college dropout. Several environmental dimensions hypothesized to be relevant to the learning process are discussed. Against the background provided by these dimensions, two approaches to the student's interaction with his environment are described. One of these approaches is based on knowledge about the learning process, the other on a developmental conceptualization of the college experience.

Wray, Frederick Earl, and Leishuck, Gerald S. "Predicting Academic Success of Junior College Transfers," College & University, 47: 10-16, Fall, 1971.

A total of 755 junior college transfer students at the University of Alabama were studied to examine the relationship between various academic variables and academic performance at the university. Using the technique of multiple linear correlation it was found that: (1) a negligible relationship existed between hours attempted at a junior college and performance at the university, (2) the ACT composite score was a poor predictor of university performance, and (3) the best predictor of first quarter performance was junior college GPA.

Zaccaria, Lucy, and Creaser, James. "Factors Related to Persistence in an Urban Commuter University," Journal of College Student Personnel, 12: 286-91, July, 1971.

The subjects were 409 participants in the freshman guidance programs at the University of Illinois at Chicago Circle in 1963. In 1968 a follow-up study was initiated to investigate factors related to the educational outcomes of the students. It was found that academic withdrawal was related to low ability and high school achievement, males from lower socio-economic backgrounds were more likely to withdraw, and non-conforming, assertive students were more likely to withdraw.

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